

10/559,519

=> file registry

FILE 'REGISTRY' ENTERED AT 13:31:47 ON 05 MAR 2007
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STRUCTURE FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8
DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> file caplus

FILE 'CAPLUS' ENTERED AT 13:31:50 ON 05 MAR 2007
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FILE COVERS 1907 - 5 Mar 2007 VOL 146 ISS 11
FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d stat que L8

L6	7	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	MOTOUNE	S?/AU
L7	6112	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	IKEDA	Y?/AU
L8	7	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L6 AND	L7

=> d stat que L52

L2 7 SEA FILE=REGISTRY ABB=ON PLU=ON (10043-52-4/BI OR 7647-14-5/B
 I OR 7786-30-3/BI OR 9004-62-0/BI OR 9004-64-2/BI OR 9004-65-3/
 BI OR 9004-67-5/BI)
 L3 8522 SEA FILE=REGISTRY ABB=ON PLU=ON CELLULOSE/CNS
 L4 4 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND L3
 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
 L6 7 SEA FILE=CAPLUS ABB=ON PLU=ON MOTOUNE S?/AU
 L7 6112 SEA FILE=CAPLUS ABB=ON PLU=ON IKEDA Y?/AU
 L9 149363 SEA FILE=CAPLUS ABB=ON PLU=ON ?CAPSUL?/BI
 L10 227466 SEA FILE=CAPLUS ABB=ON PLU=ON DRUG DELIVERY SYSTEMS+OLD/CT
 L11 25392 SEA FILE=CAPLUS ABB=ON PLU=ON L10 (L) L9
 L12 414044 SEA FILE=CAPLUS ABB=ON PLU=ON ?CELLULOS?/BI
 L13 205107 SEA FILE=CAPLUS ABB=ON PLU=ON L3
 L14 35968 SEA FILE=CAPLUS ABB=ON PLU=ON L4
 L15 4316 SEA FILE=CAPLUS ABB=ON PLU=ON ALKALI METAL CHLORIDES/CT
 L16 1210 SEA FILE=CAPLUS ABB=ON PLU=ON ALKALINE EARTH CHLORIDES/CT
 L17 623 SEA FILE=CAPLUS ABB=ON PLU=ON TRANSITION METAL CHLORIDES/CT
 L18 1156 SEA FILE=CAPLUS ABB=ON PLU=ON RARE EARTH CHLORIDES/CT
 L19 642 SEA FILE=CAPLUS ABB=ON PLU=ON INORGANIC CHLORID?/BI
 L20 187625 SEA FILE=CAPLUS ABB=ON PLU=ON L5
 L21 150 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND L14 AND L20
 L22 1668122 SEA FILE=CAPLUS ABB=ON PLU=ON (THU OR BAC OR DMA OR PAC OR
 PKT)/RL
 L23 614 SEA FILE=CAPLUS ABB=ON PLU=ON (L4 (L) L22) AND (L5 (L) L22)
 L24 132 SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND L11
 L25 93555 SEA FILE=CAPLUS ABB=ON PLU=ON (SALT OR SALINE)/BI (2A)
 SOLUTION?/BI
 L26 2 SEA FILE=CAPLUS ABB=ON PLU=ON L24 AND L25
 L27 2 SEA FILE=CAPLUS ABB=ON PLU=ON L21 AND L25
 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
 L30 3 SEA FILE=CAPLUS ABB=ON PLU=ON L24 AND L29
 L32 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L5 (L) L22) AND (L29 (L) L22)
 AND L11
 L33 4 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND L12
 L36 7 SEA FILE=CAPLUS ABB=ON PLU=ON L26 OR L27 OR L30 OR L33
 L39 112 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20) AND (L29 OR
 WATER/BI OR AQUEOUS/BI OR L25)
 L40 105 SEA FILE=CAPLUS ABB=ON PLU=ON L39 NOT L36
 L41 5 SEA FILE=CAPLUS ABB=ON PLU=ON L39 AND (L29 (L) L22)
 L42 3 SEA FILE=CAPLUS ABB=ON PLU=ON L25 AND L40
 L43 79 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
 AND ((L15 OR L16 OR L17 OR L18 OR L19 OR L20) (L) L22) AND
 (L29 OR WATER/BI OR AQUEOUS/BI OR L25)
 L46 10415 SEA FILE=CAPLUS ABB=ON PLU=ON WATER/BI (1A) ACTIVIT?/BI
 L47 2 SEA FILE=CAPLUS ABB=ON PLU=ON L43 AND L46
 L48 5 SEA FILE=CAPLUS ABB=ON PLU=ON L43 AND L25
 L50 17 SEA FILE=CAPLUS ABB=ON PLU=ON L43 AND EXTRACT?/BI
 L51 27 SEA FILE=CAPLUS ABB=ON PLU=ON L26 OR L27 OR L30 OR L33 OR
 L41 OR L42 OR L47 OR L48 OR L50
 L52 1 SEA FILE=CAPLUS ABB=ON PLU=ON (L6 OR L7) AND L51

=> s L8 or L52

L110 7 L8 OR L52

=> file medline

FILE 'MEDLINE' ENTERED AT 13:32:23 ON 05 MAR 2007

FILE LAST UPDATED: 3 Mar 2007 (20070303/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d stat que L53

```
L6          7 SEA FILE=CAPLUS ABB=ON  PLU=ON  MOTOUNE S?/AU
L7          6112 SEA FILE=CAPLUS ABB=ON  PLU=ON  IKEDA Y?/AU
L53         1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L6 AND L7
```

=> file embase

FILE 'EMBASE' ENTERED AT 13:32:35 ON 05 MAR 2007

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FILE COVERS 1974 TO 5 Mar 2007 (20070305/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d stat que L88

```
L6          7 SEA FILE=CAPLUS ABB=ON  PLU=ON  MOTOUNE S?/AU
L7          6112 SEA FILE=CAPLUS ABB=ON  PLU=ON  IKEDA Y?/AU
L88         2 SEA FILE=EMBASE ABB=ON  PLU=ON  L6 AND L7
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=> file biosis

FILE 'BIOSIS' ENTERED AT 13:32:43 ON 05 MAR 2007

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FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 28 February 2007 (20070228/ED)

=> d stat que L106

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L6          7 SEA FILE=CAPLUS ABB=ON  PLU=ON  MOTOUNE S?/AU
L7          6112 SEA FILE=CAPLUS ABB=ON  PLU=ON  IKEDA Y?/AU
L106        1 SEA FILE=BIOSIS ABB=ON  PLU=ON  L6 AND L7
```

=> dup rem L110 L53 L88 L106

FILE 'CAPLUS' ENTERED AT 13:33:02 ON 05 MAR 2007

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FILE 'MEDLINE' ENTERED AT 13:33:02 ON 05 MAR 2007

FILE 'EMBASE' ENTERED AT 13:33:02 ON 05 MAR 2007

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FILE 'BIOSIS' ENTERED AT 13:33:02 ON 05 MAR 2007

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PROCESSING COMPLETED FOR L110

PROCESSING COMPLETED FOR L53

PROCESSING COMPLETED FOR L88

PROCESSING COMPLETED FOR L106

L111 7 DUP REM L110 L53 L88 L106 (4 DUPLICATES REMOVED)

ANSWERS '1-7' FROM FILE CAPLUS

=> d ibib abs hitind hitstr L111 1-7

L111 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:466352 CAPLUS Full-text

DOCUMENT NUMBER: 141:370387

TITLE: Potential use of 2-hydroxypropyl- β -cyclodextrin as a release modifier of a water-soluble drug, metoprolol tartrate, from ethylcellulose tablets

AUTHOR(S): Ikeda, Y.; Motoune, S.; Ono, M.;

Arima, H.; Hirayama, F.; Uekama, K.

CORPORATE SOURCE: Healthcare Research Institute, Wakunaga Pharmaceutical Co., Ltd., Koda-cho, Takata-gun, Hiroshima, 739-1195, Japan

SOURCE: Journal of Drug Delivery Science and Technology; (2004), 14(1), 69-76

CODEN: JDDSAL

PUBLISHER: Editions de Sante

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Drug release behavior was investigated for tablets of a ternary system in which metoprolol tartrate (Met)/2-hydroxypropyl- β -cyclodextrin (HP- β -CD) complexes with different molar ratios were dispersed in an ethylcellulose (EC) matrix. The release rate of Met from the tablets decreased due to the formation of the binary solid dispersion with EC and was further slowed down by dispersal of the Met/HP- β -CD complex in the EC matrix. The release rate of Met decreased with the increase in contents of HP- β -CD in EC matrix up to (30/10)/60%weight/weight (Met/HP- β -CD)/EC but further increases in HP- β -CD content led to faster release rates. The anal. of the release rates by Korsmeyer's and Higuchi's equations and their temperature dependence suggested that Met is released according to a diffusion-controlled mechanism. Water penetration studies and microscopic observation suggested that the retarding effect of HP- β -CD is attributable to a gel formation in small pores of the EC matrix. Moreover, the release rate of Met from the ternary (Met/HP- β -CD)/EC ((30/10)/60%weight/weight) tablet was negligibly influenced by the pH of the dissoln. medium, paddle rotation rate, viscosity of the solution and storage conditions of the tablet. The results suggested that HP- β -CD can work as a release rate-decelerating agent for Met when it is formulated in appropriate amts. in a hydrophobic EC matrix. Therefore, a combination of HP- β -CD and EC may be useful for the controlled release of water-soluble drugs, and the release control can be tuned by adjusting the composition of components.

CC 63-6 (Pharmaceuticals)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2002:859272 CAPLUS Full-text

DOCUMENT NUMBER: 139:73854

TITLE: Inclusion complex formation of captopril with α - and β -cyclodextrins in aqueous solution: NMR spectroscopic and molecular dynamic studies

AUTHOR(S): **Ikeda, Yoichi; Motoune, Sohko;**
Matsuoka, Toshikazu; Arima, Hidetoshi; Hirayama, Fumitoshi; Uekama, Kaneto

CORPORATE SOURCE: Healthcare Research Institute, Wakunaga Pharmaceutical Co., Ltd., Hiroshima, 739-1195, Japan

SOURCE: Journal of Pharmaceutical Sciences (2002), 91(11), 2390-2398
CODEN: JPMSAE; ISSN: 0022-3549

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The inclusion complex formation of α -cyclodextrin (α -CyD), β -cyclodextrin (β -CyD), and 2-hydroxylpropyl- β -cyclodextrin (HP- β -CD) with an angiotensin converting enzyme inhibitor, captopril, in aqueous solution was studied by ^1H - and ^{13}C -NMR spectroscopies, including ROESY and GROESY techniques, by kinetic methods and by mol. dynamic calcs. The oxidative degradation of captopril was markedly suppressed in α -CyD solns., whereas β -CyD and HP- β -CyD had negligible stabilizing effects. These NMR and kinetic results suggested that α -CyD includes preferably the Pr thioalc. moiety of captopril, depositing the proline moiety outside the cavity. On the other hand, β -CyD includes a whole mol. of captopril in the cavity, locating the carboxylic acid within the cavity and the terminal thiol moiety outside the cavity. These inclusion structures were supported by mol. dynamic studies.

CC 63-5 (Pharmaceuticals)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:14260 CAPLUS Full-text

DOCUMENT NUMBER: 142:100421

TITLE: Stable liquid preparations of water-insoluble active ingredients

INVENTOR(S): **Ikeda, Yoichi; Motoune, Soko;** Ono, Mizuho; Mohri, Yoshifumi

PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000358	A1	20050106	WO 2004-JP8990	20040625
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

US 2006124695 A1 20060615 US 2005-559778 20051207
 PRIORITY APPLN. INFO.: JP 2003-184881 A 20030627
 WO 2004-JP8990 W 20040625

AB A liquid preparation comprises a solution having a water content of 10 to 80 % and, incorporated therein, an active ingredient coated with a coating material containing a water-soluble cellulose derivative. The liquid preparation enables an ingredient unstable to water to be stably held therein, and can mask an unpleasant taste or odor. The liquid preparation is filled into hard capsules.

IC ICM A61K047-38
 ICS A61K009-08; A61K009-48; A61K035-78

CC 63-6 (Pharmaceuticals)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:14196 CAPLUS Full-text

DOCUMENT NUMBER: 142:100405

TITLE: Hard capsules containing active agents in **aqueous** solutions

INVENTOR(S): **Motoune, Soko; Ikeda, Yoichi**

PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000279	A1	20050106	WO 2004-JP8988	20040625
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1645268	A1	20060412	EP 2004-746457	20040625
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
US 2006153909	A1	20060713	US 2005-559519	20051206
PRIORITY APPLN. INFO.:			JP 2003-184866	A 20030627
			WO 2004-JP8988	W 20040625

AB Hard capsules having a solution containing an effective ingredient filled therein, are characterized in that the filled solution contains an inorg. chloride and exhibits a **water** content (w) satisfying the relationship $10 < w \leq 80\%$ and a **water activity** value (a) satisfying the relationship $0.50 \leq a \leq 0.90$ and that the capsule is comprised of a base containing a **cellulose** derivative. The hard capsules permit encapsulation of an inside solution of effective ingredient having a high **water** content in liquid form without detriment to the properties and stability of drug, etc. and the sensation of dosing or eating.

IC ICM A61K009-48
 ICS A61K047-38; A61K047-02; A61K035-78; A61K035-12; A61K035-66;
 A23L001-00

CC 63-6 (Pharmaceuticals)
 ST hard capsule **cellulose** ether **salt** drug **soln**
 IT **Drug delivery systems**
 (**capsules**; hard **capsules** containing active agents in
 aqueous solns.)
 IT Natural products, pharmaceutical
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (hard capsules containing active agents in **aqueous** solns.)
 IT Fermentation
 (products; hard capsules containing active agents in **aqueous** solns.)
 IT **7647-14-5**, Sodium chloride, biological studies **7786-30-3**
 , Magnesium chloride, biological studies **9004-62-0**, Hydroxyethyl
 cellulose 9004-64-2, Hydroxypropyl **cellulose**
 9004-65-3, Hydroxypropyl methyl **cellulose**
 9004-67-5, Methyl **cellulose 10043-52-4**,
 Calcium chloride, biological studies
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (hard capsules containing active agents in **aqueous** solns.)
 IT **7647-14-5**, Sodium chloride, biological studies **7786-30-3**
 , Magnesium chloride, biological studies **9004-62-0**, Hydroxyethyl
 cellulose 9004-64-2, Hydroxypropyl **cellulose**
 9004-65-3, Hydroxypropyl methyl **cellulose**
 9004-67-5, Methyl **cellulose 10043-52-4**,
 Calcium chloride, biological studies
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (hard capsules containing active agents in **aqueous** solns.)
 RN 7647-14-5 CAPLUS
 CN Sodium chloride (NaCl) (9CI) (CA INDEX NAME)

Cl—Na

RN 7786-30-3 CAPLUS
 CN Magnesium chloride (MgCl₂) (9CI) (CA INDEX NAME)

Cl—Mg—Cl

RN 9004-62-0 CAPLUS
 CN Cellulose, 2-hydroxyethyl ether (CA INDEX NAME)

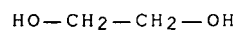
CM 1

CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1
 CMF C2 H6 O2



RN 9004-64-2 CAPLUS
CN Cellulose, 2-hydroxypropyl ether (CA INDEX NAME)

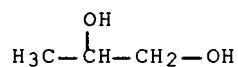
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9004-65-3 CAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether (CA INDEX NAME)

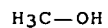
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

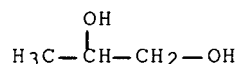
CM 2

CRN 67-56-1
CMF C H4 O



CM 3

CRN 57-55-6
CMF C3 H8 O2



RN 9004-67-5 CAPLUS
CN Cellulose, methyl ether (CA INDEX NAME)

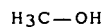
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1
CMF C H4 O



RN 10043-52-4 CAPLUS
CN Calcium chloride (CaCl₂) (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:551409 CAPLUS Full-text
DOCUMENT NUMBER: 139:90499
TITLE: Pharmaceutical hard capsules
INVENTOR(S): **Motoune, Soko; Ikeda, Yoichi**
PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003057256	A1	20030717	WO 2002-JP13574	20021226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2002367423 A1 20030724 AU 2002-367423 20021226
 EP 1459767 A1 20040922 EP 2002-790886 20021226
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 US 2005112189 A1 20050526 US 2003-498982 20021226
 PRIORITY APPLN. INFO.: JP 2001-400903 A 20011228
 WO 2002-JP13574 W 20021226

AB Hard capsules have a solution containing an active ingredient enclosed therein, wherein the capsule film is made of a material containing a cellulose derivative and the moisture content (w) of the encapsulated solution and the water activity (a) thereof, resp. satisfy the following requirements: $10 < w \leq 50\%$ and $0.60 \leq a \leq 0.90$. Thus, it becomes possible to provide hard capsules having a solution of an active ingredient with a high moisture content which is encapsulated therein as a liquid without deteriorating the properties and stability of a drug, etc. or altering the dosage characteristics or texture.

IC ICM A61K047-38
 ICS A61K009-48; A61K047-32; A61K047-36; A61K035-78; A61P003-02
 CC 63-6 (Pharmaceuticals)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:154281 CAPLUS Full-text
 DOCUMENT NUMBER: 138:193301
 TITLE: Sustained-release medicinal compositions containing drug complexes
 INVENTOR(S): Uekama, Kaneto; Hirayama, Fumitoshi; **Ikeda, Yoichi; Motoune, Soko**
 PATENT ASSIGNEE(S): Wakunaga Pharmaceutical Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015824	A1	20030227	WO 2002-JP8011	20020806
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2005022975	A	20050127	JP 2001-242234	20010809
PRIORITY APPLN. INFO.:			JP 2001-242234	A 20010809

AB Disclosed are medicinal compns. containing a complex of water-soluble drug with water-soluble cyclodextrin and a hydrophobic polymer. In such a composition, the water-soluble drug can be maintained in a stable state and the elution of the drug from the composition can be accurately controlled. Thus, prepns. with the use of these medicinal compns. are useful as sustained-release prepns. wherein the elution of the drug can be regulated and the drug effect can be exerted over a long period of time. In addition, the hydrophobic polymer can be blended and tabletted without granulation, which makes it possible to conveniently and safely produce sustained-release prepns. Metoprolol tartrate inclusion complexes with hydroxypropyl β -cyclodextrin were prepared and formulated with Et cellulose for tablets.

IC ICM A61K047-40

ICS A61K009-20; A61K047-30; A61K047-32; A61K047-38

CC 63-6 (Pharmaceuticals)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L111 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:494983 CAPLUS Full-text

DOCUMENT NUMBER: 140:8583

TITLE: Effect of 2-hydroxypropyl- β -cyclodextrin on release rate of metoprolol from ternary metoprolol/2-hydroxypropyl- β -cyclodextrin/ethylcellulose tablets

AUTHOR(S): Ikeda, Yoichi; Motoune, Sohko; Marumoto, Aya; Sonoda, Yoh; Hirayama, Fumitoshi; Arima, Hidetoshi; Uekama, Kaneto

CORPORATE SOURCE: Healthcare Research Institute, Wakunaga Pharmaceutical Co. Ltd., Hiroshima, 739-1195, Japan

SOURCE: Journal of Inclusion Phenomena and Macrocyclic Chemistry (2002), Volume Date 2003, 44(1-4), 141-144
CODEN: JIPCF5; ISSN: 1388-3127

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of 2-hydroxypropyl- β -cyclodextrin (HP- β -CyD) on the release of a water-soluble β 1-selective adrenoreceptor antagonist, metoprolol (Met), from ternary Met/HP- β -CyD/ethylcellulose (EC) tablets was investigated. The release rate of Met from the ternary tablets was dependent on amts. of HP- β -CyD in the tablets, i.e., the rate decreased when small amts. of HP- β -CyD were added, while large amts. of HP- β -CyD accelerated the rate. The slowest rate was observed for the tablet consisted of a 30/10/60 weight ratio of Met/HP- β -CyD/EC. The analyses of the release rates by the Korsmeyer equation and their temperature dependence suggested that Met is released from the EC matrix containing HP- β -CyD according to the diffusion-controlled mechanism. The water penetration studies and the micro- and macroscopic observations suggested that the retarding effect of HP- β -CyD is attributable to a viscous gel formation in small pores on the surface of the tablets, where HP- β -CyD gels may work as a barrier for the water penetration into the tablets and the release of the drug from the tablets. The in-vitro release property of the ternary tablets was reflected in the in-vivo absorption profile in dogs. The results indicated that a combination of HP- β -CyD and EC is useful for the release control of water-soluble drugs such as Met.

CC 63-5 (Pharmaceuticals)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

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FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

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=> d stat que L26

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BI OR 9004-67-5/BI)
L3 8522 SEA FILE=REGISTRY ABB=ON PLU=ON CELLULOSE/CNS
L4 4 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND L3

L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
 L9 149363 SEA FILE=CAPLUS ABB=ON PLU=ON ?CAPSUL?/BI
 L10 227466 SEA FILE=CAPLUS ABB=ON PLU=ON DRUG DELIVERY SYSTEMS+OLD/CT
 L11 25392 SEA FILE=CAPLUS ABB=ON PLU=ON L10 (L) L9
 L22 1668122 SEA FILE=CAPLUS ABB=ON PLU=ON (THU OR BAC OR DMA OR PAC OR
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 L24 132 SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND L11
 L25 93555 SEA FILE=CAPLUS ABB=ON PLU=ON (SALT OR SALINE)/BI (2A)
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 L26 2 SEA FILE=CAPLUS ABB=ON PLU=ON L24 AND L25

=> d stat que L27

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 BI OR 9004-67-5/BI)
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 L20 187625 SEA FILE=CAPLUS ABB=ON PLU=ON L5
 L21 150 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND L14 AND L20
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 L27 2 SEA FILE=CAPLUS ABB=ON PLU=ON L21 AND L25

=> d stat que L30

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 BI OR 9004-67-5/BI)
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 L4 4 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND L3
 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
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 L24 132 SEA FILE=CAPLUS ABB=ON PLU=ON L23 AND L11
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 BI OR 9004-67-5/BI)
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 L4 4 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND L3
 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
 L9 149363 SEA FILE=CAPLUS ABB=ON PLU=ON ?CAPSUL?/BI
 L10 227466 SEA FILE=CAPLUS ABB=ON PLU=ON DRUG DELIVERY SYSTEMS+OLD/CT
 L11 25392 SEA FILE=CAPLUS ABB=ON PLU=ON L10 (L) L9
 L12 414044 SEA FILE=CAPLUS ABB=ON PLU=ON ?CELLULOS?/BI

L22 1668122 SEA FILE=CAPLUS ABB=ON PLU=ON (THU OR BAC OR DMA OR PAC OR
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L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
L32 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L5 (L) L22) AND (L29 (L) L22)
AND L11
L33 4 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND L12

=> d stat que L41

L2 7 SEA FILE=REGISTRY ABB=ON PLU=ON (10043-52-4/BI OR 7647-14-5/B
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BI OR 9004-67-5/BI)
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L4 4 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND L3
L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
L9 149363 SEA FILE=CAPLUS ABB=ON PLU=ON ?CAPSUL?/BI
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L11 25392 SEA FILE=CAPLUS ABB=ON PLU=ON L10 (L) L9
L12 414044 SEA FILE=CAPLUS ABB=ON PLU=ON ?CELLULOS?/BI
L13 205107 SEA FILE=CAPLUS ABB=ON PLU=ON L3
L14 35968 SEA FILE=CAPLUS ABB=ON PLU=ON L4
L15 4316 SEA FILE=CAPLUS ABB=ON PLU=ON ALKALI METAL CHLORIDES/CT
L16 1210 SEA FILE=CAPLUS ABB=ON PLU=ON ALKALINE EARTH CHLORIDES/CT
L17 623 SEA FILE=CAPLUS ABB=ON PLU=ON TRANSITION METAL CHLORIDES/CT
L18 1156 SEA FILE=CAPLUS ABB=ON PLU=ON RARE EARTH CHLORIDES/CT
L19 642 SEA FILE=CAPLUS ABB=ON PLU=ON INORGANIC CHLORID?/BI
L20 187625 SEA FILE=CAPLUS ABB=ON PLU=ON L5
L22 1668122 SEA FILE=CAPLUS ABB=ON PLU=ON (THU OR BAC OR DMA OR PAC OR
PKT)/RL
L25 93555 SEA FILE=CAPLUS ABB=ON PLU=ON (SALT OR SALINE)/BI (2A)
SOLUTION?/BI
L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
L39 112 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20) AND (L29 OR
WATER/BI OR AQUEOUS/BI OR L25)
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=> d stat que L42

L2 7 SEA FILE=REGISTRY ABB=ON PLU=ON (10043-52-4/BI OR 7647-14-5/B
I OR 7786-30-3/BI OR 9004-62-0/BI OR 9004-64-2/BI OR 9004-65-3/
BI OR 9004-67-5/BI)
L3 8522 SEA FILE=REGISTRY ABB=ON PLU=ON CELLULOSE/CNS
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L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
L9 149363 SEA FILE=CAPLUS ABB=ON PLU=ON ?CAPSUL?/BI
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L20 187625 SEA FILE=CAPLUS ABB=ON PLU=ON L5
L21 150 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND L14 AND L20
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 L26 2 SEA FILE=CAPLUS ABB=ON PLU=ON L24 AND L25
 L27 2 SEA FILE=CAPLUS ABB=ON PLU=ON L21 AND L25
 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
 L30 3 SEA FILE=CAPLUS ABB=ON PLU=ON L24 AND L29
 L32 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L5 (L) L22) AND (L29 (L) L22)
 AND L11
 L33 4 SEA FILE=CAPLUS ABB=ON PLU=ON L32 AND L12
 L36 7 SEA FILE=CAPLUS ABB=ON PLU=ON L26 OR L27 OR L30 OR L33
 L39 112 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20) AND (L29 OR
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 L42 3 SEA FILE=CAPLUS ABB=ON PLU=ON L25 AND L40

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 BI OR 9004-67-5/BI)
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 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT L4
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 L20 187625 SEA FILE=CAPLUS ABB=ON PLU=ON L5
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 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
 L43 79 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
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=> d stat que L48

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=> d stat que L50

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 BI OR 9004-67-5/BI)
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 PKT)/RL
 L25 93555 SEA FILE=CAPLUS ABB=ON PLU=ON (SALT OR SALINE)/BI (2A)
 SOLUTION?/BI
 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON WATER/CN
 L43 79 SEA FILE=CAPLUS ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14)
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 (L29 OR WATER/BI OR AQUEOUS/BI OR L25)
 L50 17 SEA FILE=CAPLUS ABB=ON PLU=ON L43 AND EXTRACT?/BI

=> s (L26 or L27 or L30 or L33 or L41 or L42 or L47 or L48 or L50) not L110
 L112 26 (L26 OR L27 OR L30 OR L33 OR L41 OR L42 OR L47 OR L48 OR L50)
 NOT L110

=> file medline

FILE 'MEDLINE' ENTERED AT 13:34:51 ON 05 MAR 2007

FILE LAST UPDATED: 3 Mar 2007 (20070303/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been

added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d stat que L67

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L2          7 SEA FILE=REGISTRY ABB=ON  PLU=ON  (10043-52-4/BI OR 7647-14-5/B
            I OR 7786-30-3/BI OR 9004-62-0/BI OR 9004-64-2/BI OR 9004-65-3/
            BI OR 9004-67-5/BI)
L3          8522 SEA FILE=REGISTRY ABB=ON  PLU=ON  CELLULOSE/CNS
L4           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND L3
L54         82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?CAPSUL?
L55         6771 SEA FILE=MEDLINE ABB=ON  PLU=ON  CAPSULES/CT
L56         49650 SEA FILE=MEDLINE ABB=ON  PLU=ON  SODIUM CHLORIDE
L57         2701 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAGNESIUM CHLORIDE
L58         7001 SEA FILE=MEDLINE ABB=ON  PLU=ON  CALCIUM CHLORIDE
L59        98118 SEA FILE=MEDLINE ABB=ON  PLU=ON  CHLORIDES+NT/CT
L60        58826 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?CELLULOS?
L61         3263 SEA FILE=MEDLINE ABB=ON  PLU=ON  L4
L62        367309 SEA FILE=MEDLINE ABB=ON  PLU=ON  WATER
L67          9 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L54 OR L55) AND (L56 OR L57
            OR L58 OR L59) AND (L60 OR L61) AND L62
```

=> d stat que L86

```
L2          7 SEA FILE=REGISTRY ABB=ON  PLU=ON  (10043-52-4/BI OR 7647-14-5/B
            I OR 7786-30-3/BI OR 9004-62-0/BI OR 9004-64-2/BI OR 9004-65-3/
            BI OR 9004-67-5/BI)
L3          8522 SEA FILE=REGISTRY ABB=ON  PLU=ON  CELLULOSE/CNS
L4           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L2 AND L3
L54         82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?CAPSUL?
L55         6771 SEA FILE=MEDLINE ABB=ON  PLU=ON  CAPSULES/CT
L56         49650 SEA FILE=MEDLINE ABB=ON  PLU=ON  SODIUM CHLORIDE
L57         2701 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAGNESIUM CHLORIDE
L58         7001 SEA FILE=MEDLINE ABB=ON  PLU=ON  CALCIUM CHLORIDE
L59        98118 SEA FILE=MEDLINE ABB=ON  PLU=ON  CHLORIDES+NT/CT
L60        58826 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?CELLULOS?
L61         3263 SEA FILE=MEDLINE ABB=ON  PLU=ON  L4
L62        367309 SEA FILE=MEDLINE ABB=ON  PLU=ON  WATER
L63         1169 SEA FILE=MEDLINE ABB=ON  PLU=ON  WATER ACTIVIT?
L64         73275 SEA FILE=MEDLINE ABB=ON  PLU=ON  AQUEOUS
L65        181831 SEA FILE=MEDLINE ABB=ON  PLU=ON  EXTRACT
L66        356191 SEA FILE=MEDLINE ABB=ON  PLU=ON  EXTRACT?
L79         23 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L54 OR L55) AND (L56 OR L57
            OR L58 OR L59) AND (L60 OR L61)
L86         15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND ((L62 OR L63 OR L64
            OR L65 OR L66) OR SALT OR SAILIN? OR SOLUTION?)
```

=> s L67 or L86

L113 15 L67 OR L86

=> file embase

FILE 'EMBASE' ENTERED AT 13:35:15 ON 05 MAR 2007

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FILE COVERS 1974 TO 5 Mar 2007 (20070305/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d stat que L95

L56	49650	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	SODIUM CHLORIDE
L57	2701	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	MAGNESIUM CHLORIDE
L58	7001	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	CALCIUM CHLORIDE
L89	80395	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CAPSUL?
L90	68198	SEA	FILE=EMBASE	ABB=ON	PLU=ON	(L56 OR L57 OR L58)
L91	191889	SEA	FILE=EMBASE	ABB=ON	PLU=ON	CHLORIDE?
L92	43712	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CELLULOS?
L93	110	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L89 AND (L90 OR L91) AND L92
L94	50953	SEA	FILE=EMBASE	ABB=ON	PLU=ON	WATER/CT
L95	7	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L93 AND L94

=> d stat que L105

L56	49650	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	SODIUM CHLORIDE
L57	2701	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	MAGNESIUM CHLORIDE
L58	7001	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	CALCIUM CHLORIDE
L89	80395	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CAPSUL?
L90	68198	SEA	FILE=EMBASE	ABB=ON	PLU=ON	(L56 OR L57 OR L58)
L91	191889	SEA	FILE=EMBASE	ABB=ON	PLU=ON	CHLORIDE?
L92	43712	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CELLULOS?
L93	110	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L89 AND (L90 OR L91) AND L92
L96	22	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L93 AND WATER
L98	22	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L93 AND AQUEOUS
L105	11	SEA	FILE=EMBASE	ABB=ON	PLU=ON	L96 AND L98

=> s (L95 or L105) not L88

L114 14 (L95 OR L105) NOT L88

=> file emdline

'EMDLINE' IS NOT A VALID FILE NAME

SESSION CONTINUES IN FILE 'EMBASE'

Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered.

=> file medline

FILE 'MEDLINE' ENTERED AT 13:35:50 ON 05 MAR 2007

FILE LAST UPDATED: 3 Mar 2007 (20070303/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s L113 not L53

L115 15 L113 NOT L53

=> file biosis

FILE 'BIOSIS' ENTERED AT 13:36:26 ON 05 MAR 2007

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FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 28 February 2007 (20070228/ED)

=> d stat que L108

L56	49650	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	SODIUM CHLORIDE
L57	2701	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	MAGNESIUM CHLORIDE
L58	7001	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	CALCIUM CHLORIDE
L89	80395	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CAPSUL?
L90	68198	SEA	FILE=EMBASE	ABB=ON	PLU=ON	(L56 OR L57 OR L58)
L91	191889	SEA	FILE=EMBASE	ABB=ON	PLU=ON	CHLORIDE?
L92	43712	SEA	FILE=EMBASE	ABB=ON	PLU=ON	?CELLULOS?
L107	71	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	L89 AND (L90 OR L91) AND L92
L108	21	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	L107 AND WATER

=> s l108 not L106

L116 21 L108 NOT L106

=> dup rem L112 L115 L114 L116

FILE 'CAPLUS' ENTERED AT 13:37:03 ON 05 MAR 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE 'MEDLINE' ENTERED AT 13:37:03 ON 05 MAR 2007

FILE 'EMBASE' ENTERED AT 13:37:03 ON 05 MAR 2007

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FILE 'BIOSIS' ENTERED AT 13:37:03 ON 05 MAR 2007

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PROCESSING COMPLETED FOR L112

PROCESSING COMPLETED FOR L115

PROCESSING COMPLETED FOR L114

PROCESSING COMPLETED FOR L116

L117 62 DUP REM L112 L115 L114 L116 (14 DUPLICATES REMOVED)
ANSWERS '1-26' FROM FILE CAPLUS
ANSWERS '27-41' FROM FILE MEDLINE
ANSWERS '42-53' FROM FILE EMBASE
ANSWERS '54-62' FROM FILE BIOSIS

=> d ibib abs hitind L117 1-26; d iall L117 27-62

L117 ANSWER 1 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:73054 CAPLUS Full-text

TITLE: Chinese medicine composition for treating
gynecological inflammation and its preparation

INVENTOR(S): Jin, Xing; Tang, Lei; Fang, Jinian; Wang, Yan; Zhu,
Yifeng

PATENT ASSIGNEE(S): Shanghai Cirui Pharmaceutical Science and Technology

SOURCE: Co., Ltd., Peop. Rep. China
Faming Zhuanli Shenqing Gongkai Shuomingshu, 9pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1895361	A	20070117	CN 2006-10027752	20060619

PRIORITY APPLN. INFO.: CN 2006-10027752 20060619

AB The medical composition in dosage form of tablet, capsule, dripping pill, granule, injection, suppository, effervescent tablet and transdermal preparation is prepared from Ajuga decumbens 1-5, Eucalyptus leaf 2-6 and Lonicera japonica flower 1-4 part, by preparing volatile oil from Ajuga decumbens and Eucalyptus leaf by CO2 supercrit. **extraction** or steam distillation, preparing Lonicera japonica **extract** by **water** or ethanol **extraction**, mixing the above volatile oil with Lonicera japonica **extract** to obtain total **extractive**, the mixing with polyethylene glycol 6000 at a ratio of 1:2-5, heating to 85-95°, dropping in coolant di-Me silicone oil, removing coolant to obtain dripping pill; dissolving total **extractive** in injection **water**, adding sodium chloride and Tween 80, stirring, filtrating and sterilizing to obtain injection solution; mixing total **extractive** with Tween 80 and semisynthesized glyceride, heating, forming in mold, cooling to obtain suppository; adding starch, sodium CM-**cellulose** and β -cyclodextrin to total **extractive**, mixing, pelletizing and tableting to obtain tablet; mixing total **extractive** with sodium carboxymethyl starch, pelletizing and encapsulating to obtain capsule. The inventive product is used for treating gynecol. inflammation, such as pelvic inflammation, cervicitis, salpingitis, vulvitis and vaginitis with advantages of remarkable therapeutic effect and no adverse effect.

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**; Chinese medicine composition for treating gynecol. inflammation and its preparation)

IT **Extraction**
(supercrit.; Chinese medicine composition for treating gynecol. inflammation and its preparation)

IT 7585-39-9, β -Cyclodextrin **7647-14-5**, Sodium chloride **9004-32-4**, Sodium carboxymethyl **cellulose** 9005-25-8, Starch 9005-65-6, Tween-80 9063-38-1, Sodium carboxymethyl starch 25322-68-3, Polyethylene glycol

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Chinese medicine composition for treating gynecol. inflammation and its preparation)

L117 ANSWER 2 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:322591 CAPLUS Full-text

DOCUMENT NUMBER: 144:357728

TITLE: Solid pharmaceutical formulations comprising diacerein and meloxicam

INVENTOR(S): Garcia Armenta, Maria Elena; Santos Murillo, Josefina; Alvarez Ochoa, Victor Guillermo; Flores Mendoza, Consuelo

PATENT ASSIGNEE(S): Espinosa Abdala, Leopoldo, Mex.

SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006074079	A1	20060406	US 2005-186031	20050930
EP 1655026	A1	20060510	EP 2005-76453	20050622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				

PRIORITY APPLN. INFO.: MX 2004-PA9698 A 20041004

AB This invention relates to formulations in solid pharmaceutical forms containing diacerein and meloxicam. The present invention provides novel formulations comprising: (a) Diacerein, (b) Meloxicam, (c) one or more anti-adherent agents, (d) one or more disintegrating agents, (e) one or more binder agents, (f) one or more lubricants, (g) one or more diluents, (h) one or more solvents, and (i) any other additive which assists in formulation. The present invention also provides a method for treatment of osteoarthritis, rheumatoid arthritis, gouty arthritis, multiple sclerosis, amyotrophic lateral sclerosis and related diseases, in addition of inflammatory processes originated from various etiologies, by administering suitable doses.

INCL 514226500; 514569000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**

(**capsules**; solid pharmaceutical formulations comprising diacerein and meloxicam)

IT 57-11-4, Stearic acid, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-65-8, Mannitol 79-41-4D, Methacrylic acid, derivs. 557-04-0, Magnesium stearate 7778-18-9, Calcium sulfate 9000-65-1, Tragacanth 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvidone 9004-34-6, Cellulose, biological studies **9004-67-5**, Methylcellulose 9005-25-8, Corn starch, biological studies 9005-32-7, Alginic acid 9063-38-1, Sodium starch glycolate **10043-52-4**, Calcium chloride, biological studies 10103-46-5, Calcium phosphate 14807-96-6, Talc, biological studies 74811-65-7, Croscarmellose sodium
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(solid pharmaceutical formulations comprising diacerein and meloxicam)

IT 50-70-4, Sorbitol, uses 56-81-5, Glycerol, uses 57-55-6, Propylene glycol, uses 64-17-5, Ethanol, uses 110-27-0, Isopropyl myristate **7732-18-5**, Water, uses 25322-68-3, Polyethylene glycol

RL: NUU (Other use, unclassified); USES (Uses)
(solvent; solid pharmaceutical formulations comprising diacerein and meloxicam)

L117 ANSWER 3 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:5966 CAPLUS Full-text

DOCUMENT NUMBER: 146:128589

TITLE: Chinese medicinal compositions for treating gynecologic inflammation

INVENTOR(S): Jin, Xing; Zhu, Gaofeng; Tang, Lei; Zhu, Yifeng

PATENT ASSIGNEE(S): Shanghai Cirui Pharmaceutical Science and Technology Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1883607	A	20061227	CN 2006-10026797	20060523

PRIORITY APPLN. INFO.: CN 2006-10026797 20060523

AB The composition is produced from Houttuynia cordata 2-6, Eucalyptus leaf 2-6, Lonicera japonica 1-4 weight parts. Dosage form of composition is tablet, capsule, dripping pill, granule, injection, suppository, transdermal, etc. The title composition is produced by pulverizing Houttuynia cordata and eucalyptus leaf, supercrit. **extracting** with CO₂ at 20-30 MPa and 35-40 °C for 60-80 min to obtain volatile oil A, or steam distilling to obtain volatile oil B; decocting Lonicera japonica in **water** twice each for 1 h, centrifuging, vacuum concentrating supernatant at (-0.2)-(-0.9) MPa, spray or vacuum drying to obtain Lonicera japonica **extract** C, or **extracting** Lonicera japonica with 60-80% ethanol twice each for 2 h, filtrating, concentrating and drying to obtain Lonicera japonica **extract** D; mixing A or B with C or D to obtain **extractive** E, then mixing with PEG 6000 at a ratio of 1:2-5, heating to 85-95 °C, dropping to obtain dripping pills; dissolving E in injection **water**, centrifuging to obtain supernatant, adding sodium chloride and Tween-80, freezing, centrifuging, ultrafiltering, canning and sterilizing to obtain injection solution; or mixing E with Tween-80 and semisynthesized glyceride, heating, shaping in mold, cooling to obtain suppository; or mixing E with starch, sodium CM- **cellulose** and β -cyclodextrin, pelletizing and tableting to obtain tablet; or mixing E with sodium carboxymethyl starch, pelletizing and encapsulating to obtain capsule. The inventive product has advantages of high therapeutic effect and no adverse effect for treating gynecol. inflammation, such as pelvic inflammation, cervicitis, salpingitis, vulvitis and vaginitis.

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**; Chinese medicinal compns. for treating gynecol. inflammation)

IT **Extraction**
(supercrit.; Chinese medicinal compns. for treating gynecol. inflammation)

IT 7585-39-9, β -Cyclodextrin **7647-14-5**, Sodium chloride, biological studies **9004-32-4**, Sodium carboxymethyl **cellulose** 9005-25-8, Starch, biological studies 9005-65-6, Tween-80 9016-00-6, Poly[oxy(dimethylsilylene)] 9063-38-1, Sodium carboxymethyl starch 25322-68-3, Polyethylene glycol
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Chinese medicinal compns. for treating gynecol. inflammation)

L117 ANSWER 4 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1351102 CAPLUS Full-text
DOCUMENT NUMBER: 146:128534
TITLE: Pharmaceutical composition of polypeptide oral sustained-release microcapsule and method for its preparation thereof
INVENTOR(S): Dai, Zhifei; Yue, Xiuli; Xing, Lei
PATENT ASSIGNEE(S): Harbin Institute of Technology, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1879610	A	20061220	CN 2006-10009893	20060403
PRIORITY APPLN. INFO.:			CN 2006-10009893	20060403

AB The present invention relates to pharmaceutical composition of polypeptide oral sustained-release microcapsule and method for its preparation thereof. Specifically, the method consists of the following steps of (1) adsorbing polypeptide drug with 0.01-10 M acidic solution(pH 1-6) containing 0.01-100 mg/mL polyanion; (2) centrifugating or filtering to remove unabsorbed polyanion, washing with 0.01-10 M **salt solution**(pH 1-6) for some times and 0.1-100 min every time; (3) adsorbing with said concentration polycation; (4) removing polycation with above method; steps of (1) and (2); and sequential repeating steps of (1), (2), (3) and (4). The salt is sodium chloride, ammonium chloride, etc. The polyanion is sodium polystyrene sulfonate, sodium polyacrylate, etc., and the polycation is chitosan, collagen, etc. The polypeptide is insulin, interferon, protamines, etc.

CC 63-6 (Pharmaceuticals)

IT **Drug delivery systems**
(**microcapsules**, sustained-release; pharmaceutical composition of polypeptide oral sustained-release **microcapsule** and method for its preparation thereof)

IT **Drug delivery systems**
(**microcapsules**; pharmaceutical composition of polypeptide oral sustained-release **microcapsule** and method for its preparation thereof) -

IT **Drug delivery systems**
(oral; pharmaceutical composition of polypeptide oral sustained-release **microcapsule** and method for its preparation thereof)

IT 7447-40-7, Potassium chloride, biological studies 7632-05-5, Sodium phosphate **7647-14-5**, Sodium chloride, biological studies 7757-82-6, Sodium sulphate 7778-80-5, Potassium sulphate 7783-20-2, Ammonium sulphate 9003-04-7, Sodium polyacrylate **9004-32-4**, Sodium carboxymethyl **cellulose 9004-34-6**, **Cellulose**, biological studies 9004-54-0D, Dextran, cationic derivative 9004-61-9, Hyaluronic acid 9005-38-3, Sodium alginate 9012-76-4, Chitosan 9042-14-2, Dextran sulphate 9080-79-9 12125-02-9, Ammonium chloride, biological studies 16068-46-5, Potassium phosphate 16072-57-4D, Diphenylamine-4-diazonium, substituted 24937-47-1, Polyarginine 25087-26-7, Polymethacrylic acid 25104-18-1, Polylysine 25212-18-4, Polyarginine 38000-06-5, Polylysine

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(pharmaceutical composition of polypeptide oral sustained-release microcapsule and method for its preparation thereof)

L117 ANSWER 5 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:907335 CAPLUS Full-text

DOCUMENT NUMBER: 145:342376

TITLE: Antiseptic and anti-inflammatory chinese patent preparation and its quality control

INVENTOR(S): Wang, Hengxin

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 20pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1823897 A 20060830 CN 2005-10032579 20051220
 PRIORITY APPLN. INFO.: CN 2005-10032579 20051220

AB The preparation is tanshinone pill or tanshinone dripping pill or enteric dripping pill or micropill capsule or disperse tablet or granule or enteric granule or effervescent granules. The preparation process comprises **extracting** *Salvia miltiorrhiza*, adding proper adjuvant and preparing tanshinone pill or tanshinone dripping pill or enteric dripping pill or micropill capsule or disperse tablet or granule or enteric granule or effervescent granules; or adding proper adjuvant, pelleting, drying, coating or uncoating. The adjuvant is lactose, starch, sodium carboxymethyl starch, pregelatinized starch, sucrose, glucose, mannite, sorbitol, syrup, microcryst. **cellulose**, Me **cellulose**, CM-**cellulose**, Et **cellulose**, hydroxypropyl Me **cellulose**, low-substituted hydroxypropyl **cellulose**, calcium CM-**cellulose**, calcium sulfate, calcium hydrogen phosphate, calcium phosphate, calcium carbonate, light magnesium oxide, talc powder, differential silica gel, aluminum hydroxide, boric acid, sodium chloride, dextrin, magnesium stearate, hydrogenated vegetable oil, and polyethylene glycol. The content of tanshinone IIA in the Chinese patent medicine is determined by HPLC scanning from 260 nm to 280 nm on C18 column with acetonitrile-**water** (65-75:20-35) as mobile phase. The patent product has high bioavailability, good controllability and stability, so it is beneficial for increasing curative effect.

CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 1

IT **Drug delivery systems**

(**capsules**; antiseptic and anti-inflammatory chinese patent preparation and its quality control)

IT 50-70-4, Sorbitol, biological studies 50-99-7, Glucose, biological studies 56-81-5, Glycerol, biological studies 57-11-4, Stearic acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 63-42-3, Lactose 69-65-8, Mannite 77-92-9, Citric acid, biological studies 81-25-4, Cholic acid 87-69-4, Tartaric acid, biological studies 87-99-0, Xylitol 88-99-3, 1,2-Benzenedicarboxylic acid, biological studies 110-15-6, Succinic acid, biological studies 110-17-8, Fumaric acid, biological studies 128-44-9, Saccharin sodium 144-55-8, Sodium bicarbonate, biological studies 151-21-3, Sodium dodecylsulfate, biological studies 471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium carbonate, biological studies 557-04-0, Magnesium stearate 568-72-9, Tanshinone IIA 616-45-5, Pyrrolidone 822-16-2, Sodium stearate 1309-48-4, Magnesium oxide, biological studies 7631-86-9, Silicon dioxide, biological studies **7647-14-5**, Sodium chloride, biological studies 7778-18-9, Calcium sulfate **9000-11-7**, Carboxymethyl **cellulose** 9002-89-5, Polyvinyl alcohol **9004-32-4**, Sodium carboxymethyl **cellulose** **9004-44-8**, **Cellulose** phthalate **9004-48-2**, **Cellulose** propionate 9004-53-9, Dextrin **9004-57-3**, Ethyl **cellulose** **9004-64-2**, Hydroxypropyl **cellulose** **9004-65-3**, Hydroxypropyl methyl **cellulose** **9004-67-5**, Methyl **cellulose** 9004-99-3, Polyoxyethylene monostearate 9005-25-8, Starch, biological studies 9005-65-6, Polysorbate 80 9012-76-4, Chitosan **9050-04-8**, Calcium carboxymethyl **cellulose** **9050-31-1**, Hydroxypropyl methyl **cellulose** phthalate 9063-38-1, Sodium carboxymethyl starch 10043-35-3, Boric acid, biological studies 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3, Polyethylene glycol 25610-19-9, Polyethylene phthalate 26446-35-5, Glyceryl acetate **37205-99-5**, Carboxymethyl ethyl **cellulose** 53237-50-6 **70535-77-2**, Hydroxypropyl methyl **cellulose**

acetate-succinate 106392-12-5, Poloxamer 188
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antiseptic and anti-inflammatory chinese patent preparation and its
quality
control)

L117 ANSWER 6 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:883056 CAPLUS Full-text
DOCUMENT NUMBER: 145:321596
TITLE: Total flavone **extract** of Hypericum ascyron
and preparation and use thereof
INVENTOR(S): Wang, Xianrong; Zhou, Yaqiu; Zhou, Guangjiao; Zhou, Li
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1821255	A	20060823	CN 2006-10038949	20060316
PRIORITY APPLN. INFO.:			CN 2006-10038949	20060316

AB The **extract** of Hypericum ascyron comprising total flavone 40-90%, is prepared by pulverizing dried Hypericum ascyron, **extracting** 8-10 times with 40-95% ethanol under heating and refluxing for 1-2 h, repeating thrice, vacuum concentrating at <60°C, dissolving in boiling **water**, stewing for 24 h, filtrating, separating on polyamide or macroporous resin column with 60-80% ethanol solution as eluent, vacuum concentrating and drying in vacuum. The flavone **extract** of Hypericum ascyron contains rutin 5.0-15.0, hyperin 8.0-25.0, isoquercetin 10.0-30.0, quercetin 2.0-7.0 and kaempferol 0.8-2.5%. The **extracted** flavone **extract** can be prepared into medical formulation (injection, dripping pill, tablet, capsule, granule, suspension or oral solution) for treating cardio-cerebral ischemia in the presence of pharmaceutical adjuvant, such as starch, polyethylene glycol, poloxamer, Tween, glycerol, dextrin, microcryst. **cellulose**, low substituted hydroxypropylmethyl **cellulose**, magnesium stearate, sodium chloride, sodium hydrogen sulfite, mannitol, glucose, sodium sulfite, sodium thiosulfate, benzoic acid, sorbic acid, gelatin, citric acid, tartaric acid, sodium hydrogen carbonate, sodium pyrosulfite, sodium hydroxymethyl **cellulose**, edible vegetable oil, beeswax or refined honey.

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

ST Hypericum flavone **extn** heart brain antiischemics

IT Porous materials
(adsorbents; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Liquid chromatography
(adsorption; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Thrombosis
(arterial; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT **Drug delivery systems**
(**capsules**, soft; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT **Drug delivery systems**
(**capsules**; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(dripping pills; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(granules; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(infusions; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(injections, freeze-dried; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(injections; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Artery, disease
(middle cerebral, occlusion; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Adsorbents
(porous; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(powders; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(solns., oral; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(suspensions; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Drug delivery systems
(tablets; total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Anti-ischemic agents
Beeswax
Brain, disease
Essences
Heart, disease
Honey
Hypericum ascyron
(total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Flavones
RL: ANT (Analyte); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Polyamides, uses
RL: NUU (Other use, unclassified); USES (Uses)
(total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Gelatins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(total flavones **extracted** from Hypericum ascyron and preparation and use thereof)

use thereof)

IT Fats and Glyceridic oils, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (vegetable; total flavones **extracted** from Hypericum ascyron and
 preparation and use thereof)

IT Thrombosis
 (venous; total flavones **extracted** from Hypericum ascyron and
 preparation and use thereof)

IT 7440-44-0, Activated carbon, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (activated; total flavones **extracted** from Hypericum ascyron and
 preparation and use thereof)

IT **9004-34-6, Cellulose**, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (microcrystal; total flavones **extracted** from Hypericum ascyron
 and preparation and use thereof)

IT 117-39-5, Quercetin 153-18-4, Rutin 482-35-9, Isoquercetin 482-36-0,
 Hyperin 520-18-3, Kaempferol
 RL: ANT (Analyte); PAC (Pharmacological activity); PEP (Physical,
 engineering or chemical process); PYP (Physical process); THU (Therapeutic
 use); ANST (Analytical study); BIOL (Biological study); PROC (Process);
 USES (Uses)
 (total flavones **extracted** from Hypericum ascyron and preparation and
 use thereof)

IT 64-17-5, Ethanol, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (total flavones **extracted** from Hypericum ascyron and preparation and
 use thereof)

IT 50-99-7, D-Glucose, biological studies 56-81-5, Glycerol, biological
 studies 65-85-0, Benzoic acid, biological studies 69-65-8, Mannitol
 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid,
 biological studies 110-44-1, Sorbic acid 144-55-8, Sodium hydrogen
 carbonate, biological studies 557-04-0, Magnesium stearate 7631-90-5,
 Sodium hydrogen sulfite **7647-14-5**, Sodium chloride, biological
 studies 7681-57-4, Sodium pyrosulfite 7757-83-7, Sodium sulfite
 7772-98-7, Sodium thiosulfate 9004-53-9, Dextrin **9004-65-3D**,
 Hydroxypropylmethyl **cellulose**, low substituted 9005-25-8,
 Starch, biological studies 9005-65-6, Tween 80 25322-68-3,
 Polyethylene glycol **68190-68-1**, Sodium hydroxymethyl
cellulose 106392-12-5, Poloxamer
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (total flavones **extracted** from Hypericum ascyron and preparation and
 use thereof)

L117 ANSWER 7 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:815041 CAPLUS Full-text
 DOCUMENT NUMBER: 145:404080
 TITLE: Drug delivery systems of Chinese medicine for treating
 kidney disease and their preparation
 INVENTOR(S): Wang, Hengxin
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 17pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1813975 A 20060809 CN 2005-10032466 20051130
PRIORITY APPLN. INFO.: CN 2005-10032466 20051130

AB The invention relates to a medicine formulation for treating kidney diseases. The Chinese medicine is composed of prepared Rehmannia root, fleece-flower root, bark of Eucommia, Herba pyrolae, Drynaria, root of Kudzu vine, Ramulus Uncariae cum Uncis, notoginseng and Raphanus sativus Linne. The method comprises (1), weighting 50-350 parts of prepared Rehmannia root, 100-500 parts of fleece-flower root, 40-250 parts of bark of Eucommia, 40-250 parts of Herba pyrolae, 40-250 parts of Drynaria, 10-200 parts of root of Kudzu vine, 10-200 parts of Ramulus Uncariae cum Uncis, 5-100 parts of notoginseng, 10-150 parts of Raphanus sativus Linne; (2), boiling (1) with **water** for 1-4 times, 1-4 h each time, combining solns., filtering, and concentrating to obtain 1.2-1.4 g/l (80°) **extractive**, drying, pulverizing to get powders; (3), mixing powders and adding excipient to prepare into drop pill, micropill, micropill capsule, granule, effervescent granule, capsule, soft capsule, tablet, oral solution, injection, powder, ointment. The quality control method comprises detecting Puerarin by HPLC with methanol-H₂O as mobile phase.

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 64

IT **Drug delivery systems**

(**capsules**, controlled-release; drug delivery systems of Chinese medicine for treating kidney disease and their preparation)

IT **Drug delivery systems**

(**capsules**, soft; drug delivery systems of Chinese medicine for treating kidney disease and their preparation)

IT **Drug delivery systems**

(**capsules**, sustained-release; drug delivery systems of Chinese medicine for treating kidney disease and their preparation)

IT **Drug delivery systems**

(**capsules**; drug delivery systems of Chinese medicine for treating kidney disease and their preparation)

IT **9004-38-0**, CAP

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CAP; drug delivery systems of Chinese medicine for treating kidney disease and their preparation)

IT 50-99-7, Glucose, biological studies 56-81-5, Glycerin, biological studies 57-11-4, Stearic acid, biological studies 57-50-1, Sugar, biological studies 63-42-3, Lactose 67-63-0, Isopropanol, biological studies 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 87-99-0, Xylitol 102-76-1, Triacetyl Glycerin 110-17-8, Fumaric acid, biological studies 110-44-1, Sorbic acid 128-44-9, Saccharin sodium 144-55-8, Carbonic acid monosodium salt, biological studies 151-21-3, Sodium dodecyl sulfate, biological studies 471-34-1, Calcium carbonate, biological studies 497-19-8, Sodium carbonate, biological studies 557-04-0, Magnesium stearic acid 3681-99-0, Puerarin 7585-39-9, β -Cyclodextrin **7647-14-5**, Sodium chloride, biological studies 7757-93-9 7778-18-9, Calcium sulfate **9000-11-7**, Carboxymethyl **cellulose** 9002-89-5, Polyvinyl alcohol 9003-39-8, PVP **9004-32-4**, Sodium carboxymethyl **cellulose** **9004-34-6**, Crystalline **cellulose**, biological studies **9004-48-2**, **Cellulose** propionate 9004-53-9, Dextrin **9004-57-3**, Ethyl **cellulose** **9004-64-2**, Hydroxypropyl **Cellulose** **9004-65-3**, Hydroxypropylmethyl **cellulose** **9004-67-5**, Methyl **cellulose** **9005-18-9**, Propyl **cellulose** 9005-25-8, Starch, biological studies 9005-64-5, Tween 20 **9050-04-8** 10043-35-3, Boric acid, biological studies 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3, PEG

26264-14-2, Propanediol 26446-35-5, Acetyl monoglyceride 57817-89-7,
 Stevioside 106392-12-5, Poloxamer 188
 RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL
 (Biological study); USES (Uses)
 (drug delivery systems of Chinese medicine for treating kidney disease
 and their preparation)

L117 ANSWER 8 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:301802 CAPLUS Full-text

DOCUMENT NUMBER: 144:463264

TITLE: Method for preparing high-purity pancreatic kallikrein
 and pharmaceutical preparations thereof

INVENTOR(S): Ma, Biao; Wei, Huawei; Wang, Tianyan

PATENT ASSIGNEE(S): Beijing Saisheng Pharmaceutical Co., Ltd., Peop. Rep.
 China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.
 CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1737134	A	20060222	CN 2004-10009460	20040820
PRIORITY APPLN. INFO.:			CN 2004-10009460	20040820

AB The title method comprises (1) preliminarily purifying porcine or bovine
 pancreas to obtain active component 1 containing mainly pancreatic kallikrein
 (also called pancreatic kallidinogenase); (2) purifying the active component 1
 by high performance liquid chromatog. (HPLC) to obtain active component 2; (3)
 using the active component 2 as antigen to prepare anti-pancreatic kallikrein
 antibody; (4) linking the antibody to an affinity chromatog. medium to prepare
 an immunoaffinity column; and (5) purifying the above active component 1 by
 the immunoaffinity column to obtain high-purity pancreatic kallikrein. The
 invention also provides a pharmaceutical preparation of the pancreatic
 kallikrein for i.v. administration.

CC 7-2 (Enzymes)

Section cross-reference(s): 9

IT Affinity chromatography

Bos

Dialysis

Drugs

HPLC

Immunostimulants

Ion exchange chromatography

Pancreas

Physiological **saline solutions**

Protein sequences

Purification

Solvent **extraction**

Sus scrofa

(affinity chromatog. for preparing high-purity pancreatic kallikrein from
 porcine or bovine pancreas and pharmaceutical preps. thereof)

IT **Drug delivery systems**

(**capsules**, enteric; affinity chromatog. for preparing
 high-purity pancreatic kallikrein from porcine or bovine pancreas and
 pharmaceutical preps. thereof)

IT 63-42-3, Lactose **7647-14-5**, Sodium chloride, biological studies

9004-54-0, Dextran, biological studies 9005-25-8, Starch, biological
 studies 14265-44-2, Phosphate, biological studies **68190-68-1**,

Sodium hydroxymethyl **cellulose**

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(affinity chromatog. for preparing high-purity pancreatic kallikrein from porcine or bovine pancreas and pharmaceutical preps. thereof)

L117 ANSWER 9 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:316493 CAPLUS Full-text

DOCUMENT NUMBER: 144:447102

TITLE: Method of preparing high-purity pancreatic kallikrein from snake venom and pharmaceutical preparations of pancreatic kallikrein

INVENTOR(S): Ma, Biao; Wei, Huawei; Wu, Dan

PATENT ASSIGNEE(S): Beijing Saisheng Pharmaceutical Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 21 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1733913	A	20060215	CN 2004-10009422	20040811
PRIORITY APPLN. INFO.:			CN 2004-10009422	20040811
AB	The title method comprises (1) preliminarily purifying snake venom to obtain an active component 1 that contains mainly pancreatic kallikrein; (2) purifying the component 1 to obtain a component 2; (3) preparing specific antibodies against the pancreatic kallikrein using the component 2 as antigen; (4) preparing an immunoaffinity chromatog. column by binding the antibodies to an affinity chromatog. medium; and (5) purifying the component 1 on the column.			
CC	7-2 (Enzymes) Section cross-reference(s): 1			
IT	Drug delivery systems (capsules , enteric; method for preparing high-purity pancreatic kallikrein from snake venom and pharmaceutical preps. of pancreatic kallikrein)			
IT	Affinity chromatography Dialysis Drugs HPLC Immunostimulants Ion exchange chromatography Physiological saline solutions Protein sequences Purification Snake Solvent extraction Venoms (method for preparing high-purity pancreatic kallikrein from snake venom and pharmaceutical preps. of pancreatic kallikrein)			
IT	63-42-3, Lactose 7647-14-5 , Sodium chloride, biological studies 9004-54-0, Dextran, biological studies 9005-25-8, Starch, biological studies 14265-44-2, Phosphate, biological studies 68190-68-1 , Sodium hydroxymethyl cellulose RL: THU (Therapeutic use) ; BIOL (Biological study); USES (Uses) (method for preparing high-purity pancreatic kallikrein from snake venom and pharmaceutical preps. of pancreatic kallikrein)			

L117 ANSWER 10 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:962287 CAPLUS Full-text
 DOCUMENT NUMBER: 143:242036
 TITLE: Galanin receptors and brain injury
 INVENTOR(S): Wynick, David
 PATENT ASSIGNEE(S): Neurotargets Limited, UK
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080427	A1	20050901	WO 2005-GB188	20050118
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

AU 2005214115	A1	20050901	AU 2005-214115	20050118
CA 2555550	A1	20050901	CA 2005-2555550	20050118
EP 1723175	A1	20061122	EP 2005-701953	20050118
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			

PRIORITY APPLN. INFO.: GB 2004-3509 A 20040217
 WO 2005-GB188 W 20050118

AB The invention provides the use of a GALR2-specific agonist in the preparation of a medicament for the prevention or treatment of brain injury, damage or disease, wherein the brain injury or damage is caused by one of: embolic, thrombotic or hemorrhagic stroke; direct or indirect trauma or surgery to the brain or spinal cord; ischemic or embolic damage to the brain during cardiopulmonary bypass surgery or renal dialysis; reperfusion brain damage following myocardial infarction; brain disease; chemical damage as the result of excess alc. consumption or administration of chemotherapy agents for cancer treatment; radiation damage; or immunol. damage as the result of bacterial or viral infection. The brain disease may be one of Alzheimer's Disease, Parkinson's Disease, Multiple Sclerosis or variant Creutzfeld Jacob Disease.

IC ICM C07K014-72

ICS A61K039-00

CC 1-11 (Pharmacology)

Section cross-reference(s): 4, 14, 63

IT Suspensions

(**aqueous**; galanin receptors and brain injury)

IT **Drug delivery systems**

(**capsules**; galanin receptors and brain injury)

IT Drug delivery systems

(solns., **aqueous**; galanin receptors and brain injury)

IT 56-40-6, Glycine, biological studies 57-55-6, Propylene glycol, biological studies 63-42-3, Lactose 69-65-8, Mannitol 100-51-6, Benzyl alcohol, biological studies 110-44-1, Sorbic acid 112-80-1, Oleic acid, biological studies 557-04-0, Magnesium stearate 637-12-7, Aluminum stearate 1338-41-6, Sorbitan monostearate 1344-28-1, Alumina,

biological studies 5333-42-6, 2-Octyldodecanol 7440-66-6D, Zinc, compds. 7558-79-4, Disodium hydrogen phosphate 7647-14-5, Sodium chloride, biological studies 7732-18-5, **Water**, biological studies 7758-11-4 7778-77-0 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Sodium **carboxymethylcellulose** 9004-34-6D, **Cellulose**, compds. 9005-25-8, Corn starch, biological studies 9005-67-8, Polysorbate 60 14987-04-3, Magnesium trisilicate 24634-61-5, Potassium sorbate 25322-68-3, Polyethylene glycol 25322-68-3D, compds. 25322-69-4D, compds. 37220-82-9D, Oleic acid glyceride, derivs. RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses) (galanin receptors and brain injury)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 11 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:564598 CAPLUS Full-text

DOCUMENT NUMBER: 143:77319

TITLE: Continuous multi-microencapsulation process for improving the stability and storage life of biologically active ingredients in foods, cosmetics and drugs

INVENTOR(S): Casana Giner, Victor; Gimeno Sierra, Miguel; Gimeno Sierra, Barbara; Moser, Martha

PATENT ASSIGNEE(S): GAT Formulation G.m.b.H., Austria

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Spanish

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005058476	A1	20050630	WO 2004-ES562	20041217
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
ES 2235642	A1	20050701	ES 2003-2998	20031218
ES 2235642	B2	20060301		
AU 2004298792	A1	20050630	AU 2004-298792	20041217
CA 2550615	A1	20050630	CA 2004-2550615	20041217
EP 1702675	A1	20060920	EP 2004-805105	20041217
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
CN 1917946	A	20070221	CN 2004-80041872	20041217
PRIORITY APPLN. INFO.:			ES 2003-2998	A 20031218
			WO 2004-ES562	W 20041217

AB Microcapsules are obtained in a continuous **water**-in-oil-in- **water** microencapsulation process through in situ and interfacial polymerization of the emulsion. A formulation comprises a continuous **water** phase having a dispersion of microcapsules which contain oil drops and in the inside of each

oil phase drop (containing optionally oil-soluble materials) there is a dispersion of **water**, or **aqueous extract** or **water**-dispersible material or **water**-soluble material. The oil drops are encapsulated with a polymerizable material of natural origin. Such microcapsules are appropriate for spray-drying, to be used as dry powder, lyophilized, self-emulsifiable powder, gel, cream, and any liquid form. The active compds. included in the microcapsules are beneficial to health and other biol. purposes. Such formulations are appropriate for incorporation in any class of food, especially for the production of nutraceuticals, as well as cosmetic products (such as rejuvenescence creams, anti-wrinkle creams, gels, bath and shower consumable products and sprays). The preps. are adequate to stabilize compds. added to food, media for cultivating microbes and nutraceuticals, especially those which are easily degradable or oxidizable.

IC ICM B01J013-16
 CC 17-4 (Food and Feed Chemistry)
 Section cross-reference(s): 62, 63
 IT *Abelmoschus moschatus*
Adansonia digitata
Adonis vernalis
Aesculus hippocastanum
 Agglomeration preventers
Agrimonia eupatoria
Agrocybe cylindracea
Alchornea laxiflora
 Alcoholic beverages
Allium cepa
Allium sativum
Alpinia officinarum
Amaranthus caudatus
Ananas comosus
Andrographis paniculata
Angelica archangelica
Aniba rosaeodora
Anthriscus cerefolium
 Antimicrobial agents
 Antioxidants
Apium graveolens
 Apple juice
Arabidopsis
Arachis hypogaea
Arbutus unedo
Arctostaphylos uva-ursi
Ardisia japonica
Areca catechu
Artocarpus altilis
Atropa belladonna
Aureobasidium pullulans
Bacopa monnieri
 Bakery products
 Bath preparations
Berberis vulgaris
 Berry
Betula alba
 Beverages
Bifidobacterium bifidum
Bifidobacterium infantis
Bixa orellana
 Brassica
Brassica campestris
Brassica napus

Breakfast cereal
Brugia malayi
Cajanus indicus
Camellia oleifera
Camellia sinensis
Camptotheca acuminata
Cananga odorata
Candy
Cannabis
Cannabis sativa
Carica papaya
Carum carvi
Carum petroselinum
Cations
Centella asiatica
Cephalophus
Cereal (grain)
Chamaemelum nobile
Cheese
Chimaphila umbellata
Chocolate
Cicer arietinum
Cichorium intybus
Cinchona calisaya
Cinnamomum
Cinnamomum camphora
Cinnamomum zeylanicum
Cistus albidus
Citrus
Citrus aurantifolia
Citrus aurantium
Citrus aurantium dulcis
Citrus bergamia
Citrus grandis
Citrus limon
Citrus paradisi
Citrus reticulata
Citrus sinensis
Claviceps purpurea
Coccinia cordifolia
Cocoa products
Coffea arabica
Cola acuminata
Colchicum autumnale
Colloids
Condiments
Confectionery
Coriandrum sativum
Corynanthe johimbe
Cosmetics
Crataegus
Crataegus laevigata
Crataegus monogyna
Crataegus oxyacantha
Crocus sativus
Crosslinking
Crotalaria sessiliflora
Croton eluteria
Cucumis melo
Cucurbita

Culture media
Cuminum cyminum
Curcuma longa
Curcuma zedoaria
Cyclopia intermedia
Cymbopogon nardus
Cynara scolymus
Dairy products
Datura
Daucus carota
Desserts
Dietary supplements
Digestion, biological
Digitalis lanata
Digitalis purpurea
Diplazium esculentum
Dolichos biflorus
Dolichos lablab

Drug delivery systems

Echinacea angustifolia
Echinacea pallida
Echinacea purpurea
Egg, poultry
Elettaria cardamomum
Emulsifying agents
Enterococcus durans
Enterococcus faecalis
Enterococcus gallinarum
Ephedra
Ephedra sinica
Erythroxylum
Escherichia coli
Eubacteria
Eucalyptus officinalis
Eucommia ulmoides
Fabaceae
Feed additives
Ferula assa-foetida
Ferula foetida
Fish
Flavor
Flavoring materials
Foeniculum vulgare
Food additives
Food emulsions
Food processing
Fraxinus chinensis rhynchophylla
Freeze drying
Fruit
Fruit and vegetable juices
Fungi
Galipea officinalis
Gamma ray sterilization
Ginkgo biloba
Glaucium flavum
Glycyrrhiza
Glycyrrhiza glabra
Gossypium
Grape juice
Hamamelis virginiana

Hedeoma
Helichrysum angustifolium
Honey
Humulus lupulus
Hydrastis canadensis
Hydrocolloids
Hydrogels
Hyoscyamus niger
Hypericum perforatum
Hyptis
Hyssopus officinalis
Iberis amara
Ilex paraguariensis
Jams and Jellies
Jasminum grandiflorum
Jasminum officinale
Juniperus
Juniperus communis
Kluyveromyces marxianus
Lactobacillus acidophilus
Lactobacillus casei
Lactobacillus crispatus
Lactobacillus delbrueckii bulgaricus
Lactobacillus fermentum
Lactobacillus gasseri
Lactobacillus paracasei
Lactobacillus plantarum
Lactobacillus reuteri
Lactobacillus rhamnosus
Lactobacillus salivarius
Lamiaceae
Laurus nobilis
Lavandula
Lavandula hybrida
Ledum palustre
Leontopodium alpinum
Leonurus
Leucas
Leucosporidium scottii
Lobelia inflata
Lycopersicon esculentum
Lycopus
Malus pumila
Mangifera indica
Manihot esculenta
Marrubium
Marrubium vulgare
Matricaria recutita
Meat
Medicago sativa
Melissa officinalis
Mentha
Mentha pulegium
Mentha spicata
Microcapsules
Microorganism
Monarda
Monarda punctata
Mouth
Myristica fragrans

Myroxyton pereirae
 Mytilus galloprovincialis
 Nectria
 Neolentinus lepideus
 Nicotiana tabacum
 Nutrients
 Ocimum basilicum
 Odor and Odorous substances
 Olea europaea
 Orange
 Orange juice
 Origanum majorana
 Papaver somniferum
 Parthenium hysterophorus
 Pasteurization
 Pelargonium
 Pelargonium graveolens
 Perilla
 Phaseolus lunatus

(continuous multi-**microencapsulation** process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

IT Avena sativa
 (**extract**; continuous multi-**microencapsulation** process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

IT **Drug delivery systems**
 (**microcapsules**; continuous multi-**microencapsulation** process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

IT **Drug delivery systems**
 (syrups; continuous multi-**microencapsulation** process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

IT Emulsions
 (**water-in-oil-in-water**, p; continuous multi-**microencapsulation** process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

IT 50-81-7, L-Ascorbic acid, biological studies 52-90-4, L-Cysteine, biological studies 56-89-3, L-Cystine, biological studies 59-02-9 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies 64-17-5, Ethanol, biological studies 70-18-8, biological studies 73-31-4 74-79-3, L-Arginine, biological studies 83-88-5, Riboflavin, biological studies 88-26-6 90-05-1 90-19-7 94-41-7 95-48-7, biological studies 99-50-3 99-96-7, biological studies 106-44-5, biological studies 108-39-4, biological studies 111-02-4 112-80-1, 9-Octadecenoic acid (9Z)-, biological studies 117-39-5 119-13-1 121-34-6 123-07-9 126-29-4 128-37-0, biological studies 134-04-3 144-68-3 146-48-5 148-03-8 149-91-7, biological studies 153-18-4 154-23-4 303-98-0 305-84-0 327-97-9 331-39-5 432-70-2, β , ϵ -Carotene 446-72-0 463-40-1 465-42-9 469-38-5 472-61-7 480-17-1 480-18-2 480-19-3 480-40-0 480-41-1 486-66-8 490-23-3 490-46-0 491-70-3 491-80-5 506-26-3 506-32-1 514-78-3, β , β -Carotene-4,4'-dione 520-18-3 520-26-3 520-33-2 520-34-3 520-36-5 522-12-3 528-48-3 529-44-2 530-57-4 530-59-6 531-95-3 541-15-1 548-83-4 552-58-9 580-72-3 583-17-5 588-30-7 863-03-6 970-74-1 989-51-5 1135-24-6 1151-98-0 1154-78-5 1200-22-2 1406-18-4, Vitamin E 1421-63-2 1721-51-3 1783-84-2 1912-50-1 1948-33-0 2444-28-2 6217-54-5 7235-40-7,

β , β -Carotene 7400-08-0 7439-95-4, Magnesium, biological studies 7440-66-6, Zinc, biological studies 7616-22-0
7647-14-5, Sodium chloride (NaCl), biological studies 7782-49-2, Selenium, biological studies 7786-61-0 8013-90-9, Ionone 8062-15-5, Lignosulfonate 8063-16-9, Psyllium gum 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-65-1, Gum tragacanth 9000-69-5, Pectin 9002-18-0, Agar **9004-34-6, Cellulose**, biological studies 9004-53-9, Dextrin 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9005-53-2, Lignin, biological studies 9005-80-5, Inulin 9012-76-4, Chitosan 9036-66-2, Arabinogalactan 9041-22-9, β -Glucan 10028-15-6, Ozone, biological studies 10236-47-2 10417-94-4 10597-60-1 11078-30-1, Galactomannan 11138-66-2, Xanthan gum 12619-70-4, Cyclodextrin 12676-20-9, Apocarotenal 13463-28-0 13920-14-4 14101-61-2 14259-46-2 14660-91-4 17912-87-7 20290-75-9 21255-69-6 23290-26-8 24897-98-1 25013-16-5 25429-38-3 25612-59-3 26161-42-2 27785-15-5 29388-59-8 31661-06-0 32619-42-4 32839-34-2 33135-50-1, Poly-L-lactide 55167-29-8 58749-22-7 59870-68-7 78473-71-9 80226-00-2
 RL: COS (Cosmetic use); FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

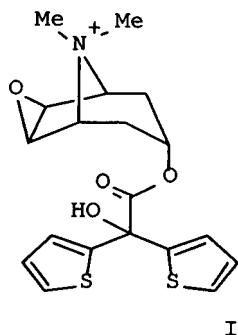
(continuous multi-microencapsulation process for improving stability and storage life of biol. active ingredients in foods, cosmetics and drugs)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 12 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:409514 CAPLUS Full-text
 DOCUMENT NUMBER: 142:447337
 TITLE: Method for producing tiotropium salts and pharmaceutical formulations, containing the same
 INVENTOR(S): Banholzer, Rolf; Pfrengle, Waldemar; Sieger, Peter
 PATENT ASSIGNEE(S): Boehringer Ingelheim International G.m.b.H., Germany; Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G.
 SOURCE: PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042526	A1	20050512	WO 2004-EP12268	20041029
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004285683	A1	20050512	AU 2004-285683	20041029
CA 2544348	A1	20050512	CA 2004-2544348	20041029
US 2005131007	A1	20050616	US 2004-977753	20041029
EP 1682541	A1	20060726	EP 2004-791028	20041029

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR
 CN 1882582 A 20061220 CN 2004-80032528 20041029
 BR 2004016136 A 20070102 BR 2004-16136 20041029
 NO 2006001440 A 20060712 NO 2006-1440 20060330
 PRIORITY APPLN. INFO.: EP 2003-25075 A 20031103
 US 2003-528339P P 20031210
 WO 2004-EP12268 W 20041029
 OTHER SOURCE(S): MARPAT 142:447337
 GI



- AB The invention provides a method for producing novel tiotropium salts I·X-, [X = anion, such as, halogen, C1-10-alkanesulfonate, C1-10-alkyl sulfate, C6-10-arylsulfonate], their hydrates and solvates, said novel tiotropium salts as such, pharmaceutical formulations, containing the salts and the use thereof for producing a medicament for the treatment of respiratory tract diseases, in particular, for the treatment of chronic obstructive pulmonary disease (COPD) and asthma (no data). The method comprises conversion of I·Y- [Y = anion different from X] to I·X- via reaction with ionic source, Kat+X- [Kat = cation, such as, alkali metal, alkaline earth metal, NH4+, N(C1-8-alkyl)4, especially N(C1-4-alkyl)4], in a suitable solvent.
- IC ICM C07D451-10
 ICS A61K031-46; A61P011-00
- CC 31-3 (Alkaloids)
 Section cross-reference(s): 33, 34, 63, 75
- IT **Drug delivery systems**
 (capsules; method for producing tiotropium salts and pharmaceutical formulations containing them)
- IT 50-70-4, Sorbitol, biological studies 50-99-7, Glucose, biological studies 57-48-7, Fructose, biological studies 57-50-1, Saccharose, biological studies 63-42-3, Lactose 69-65-8, Mannitol 69-79-4, Maltose 87-99-0, Xylitol 99-20-7, Trehalose 147-81-9, Arabinose 471-34-1, Calcium carbonate, biological studies 7585-39-9, β-Cyclodextrin 7585-39-9D, β-Cyclodextrin, hydroxypropylated 9004-34-6, Cellulose, biological studies 9004-53-9, Dextrin 9004-54-0, Dextran, biological studies 9050-36-6, Maltodextrin 10016-20-3, α-Cyclodextrin 15595-35-4, Arginine hydrochloride 17465-86-0, γ-Cyclodextrin 55216-11-0, Permethyl-β-cyclodextrin
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adjuvant; method for producing tiotropium salts and pharmaceutical formulations containing them)

IT 7647-14-5, Sodium chloride, reactions 12027-06-4, Ammonium iodide

RL: RCT (Reactant); RACT (Reactant or reagent)

(anion exchange by, of tiotropium salts; method for producing tiotropium salts and pharmaceutical formulations containing them)

IT 7732-18-5, **Water**, biological studies

RL: NUU (Other use, unclassified); **THU (Therapeutic use)**; BIOL

(Biological study); USES (Uses)

(anion exchange solvent and drug formulation co-solvent/solvent; method for producing tiotropium salts and pharmaceutical formulations containing them)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 13 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1129811 CAPLUS Full-text

DOCUMENT NUMBER: 145:477846

TITLE: Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof

INVENTOR(S): Wang, Hengxin

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1709363	A	20051221	CN 2005-10031753	20050624
PRIORITY APPLN. INFO.:			CN 2005-10031753	20050624

AB The title composition comprises Astragalus membranaceus (processed with honey) 13.9-41.7, Radix Codonopsis (Codonopsis pilosula and/or Codonopsis tangshen) 4.2-12.5, Radix Glycyrrhizae (processed with honey) 7.0-20.9, Atractylodes macrocephala (parched) 4.2-12.5, Angelica sinensis 4.2-12.5, Rhizoma Cimicifugae 4.2-12.5, Radix Bupleuri (Bupleurum chinense and/or Bupleurum scorzonnerifolium) 4.2-12.5, Citrus reticulata (Pericarpium Citri Reticulatae) 4.2-12.5, Zingiber officinale 1.5-4.4, and Ziziphus jujuba (Fructus Jujubae) 2.8-8.4 wt%. The title preparation method comprises pulverizing 15-45 wt% of Radix Codonopsis and Radix Glycyrrhizae to fine powder; **extracting** volatile oil from Atractylodes macrocephala, Citrus reticulata (Pericarpium Citri Reticulatae) and Angelica sinensis, collecting the volatile oil, solution and residue; percolating the residue and Zingiber officinale with 50% of ethanol (prepared by the above solution), recovering ethanol from the percolate; decocting 40-90 wt% of the above fine powder, the rest amount of Radix Codonopsis and the rest ingredients in **water**, filtering, concentrating the filtrate, adding the above percolate and concentrating to obtain a concentrated **extract**, adding the rest fine powder, mixing to even, drying, pulverizing to obtain medicinal powder, spraying the above volatile oil, mixing to even, adding proper adjuvants, and making into dripping pill, micro-pellet or soft capsule. The inventive composition can be used for treating symptoms due to deficiency of the spleen and stomach and collapse of middle warmer energy, such as fatigue, asthenia, anorexia, abdominal distention, persistent diarrhea, proctoptosis and uterine prolapse, with the advantages of convenience for carrying and administration, high bioavailability, good

- controllability and stability of product quality, and good therapeutic effects.
- IC ICM A61K035-78
- ICS A61K009-20; A61K009-16; A61K009-48; A61P001-14; A61P043-00
- CC 63-6 (Pharmaceuticals)
- Section cross-reference(s): 1
- IT Angelica sinensis
- Anorexia
- Astragalus membranaceus
- Atractylodes macrocephala
- Beeswax
- Bupleurum chinense
- Cimicifuga dahurica
- Citrus reticulata
- Codonopsis
- Extraction**
- Fillers
- Glycyrrhiza
- Natural products, pharmaceutical
- Syrups (sweetening agents)
- Zingiber officinale
- Ziziphus jujuba
- (Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)
- IT **Drug delivery systems**
- (**capsules**, soft; Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)
- IT **Drug delivery systems**
- (**capsules**; Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)
- IT **Drug delivery systems**
- (**microcapsules**; Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)
- IT 50-70-4, Sorbitol, biological studies 50-99-7, D-Glucose, biological studies 56-81-5, Glycerol, biological studies 57-11-4, Stearic acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 63-42-3, Lactose 67-63-0, Isopropanol, biological studies 69-65-8, Mannitol 102-76-1, Glyceryl triacetate 151-21-3, Sodium dodecylsulfate, biological studies 471-34-1, Calcium carbonate, biological studies 557-04-0, Magnesium stearate 822-16-2, Sodium stearate 1309-48-4, Magnesium oxide, biological studies 3198-29-6, biological studies **7647-14-5**, Sodium chloride, biological studies 7757-93-9, Calcium hydrogen phosphate 7778-18-9, Calcium sulphate 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone **9004-32-4**, Carboxymethyl **cellulose 9004-38-0**, **Cellulose** acetate-phthalate **9004-48-2**, **Cellulose** propionate 9004-53-9, Dextrin **9004-57-3**, **Ethylcellulose 9004-64-2**, Hydroxypropyl **cellulose 9004-65-3**, Hydroxypropyl **methylcellulose 9004-67-5**, **Methylcellulose 9004-99-3**, Polyoxyethylene monostearate 9005-25-8, Starch, biological studies 9005-65-6, Polysorbate 80 9063-38-1, Sodium carboxymethyl starch 10043-35-3, Boric acid, biological studies 10103-46-5, Calcium phosphate 14807-96-6, Talc, biological studies 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3, Polyethylene glycol

26446-35-5, Acetyl monoglyceride 31566-31-1, Glyceryl monostearate
53237-50-6 106392-12-5, Poloxamer 188

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)

IT **9004-34-6, Cellulose**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(microcryst.; Chinese medicinal composition for treating symptoms due to spleen deficiency and collapse of middle warmer energy, and preparation method thereof)

L117 ANSWER 14 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:547691 CAPLUS Full-text

DOCUMENT NUMBER: 145:34241

TITLE: Chinese medicinal composition for treating inflammations, its preparation and quality control

INVENTOR(S): Wang, Hengxin

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1679785	A	20051012	CN 2005-10031252	20050205
PRIORITY APPLN. INFO.:			CN 2005-10031252	20050205

AB The invention provides a Chinese medicinal composition in the form of pill, soft capsule, or dripping pill for treating inflammations. The composition comprises Rhizoma Coptidis 1-3, Cortex Phellodendri (Phellodendron chinense and/or Phellodendron amurense) 18.2-54.6, Isatis indigotica root 13.7-41.0, 3.7-11.0, and Scutellaria baicalensis 13.7-41.0%. The preparation method comprises the steps of (1) pulverizing Rhizoma Coptidis and Radix Et Rhizoma Rhei into fine powders; (2) decocting Scutellaria baicalensis and Isatis indigotica root in **water**, filtering, and concentrating to give **extract**; (3) decocting Cortex Phellodendri (Phellodendron chinense and/or Phellodendron amurense) in **water**, filtering, concentrating, precipitating with ethanol, filtering, and concentrating to give **extract**, or drying to give dried **extract**; and (4) mixing the products of the above steps, drying, pulverizing into fine powders, mixing with adjuvants, and making into desired dosage form. Also provided is its identification by TLC and assaying of baicalin by HPLC.

IC ICM A61K035-78

ICS A61K009-20; A61K009-48; A61P029-00; G01N030-90; G01N030-02;
G01N033-15

CC 63-6 (Pharmaceuticals)

IT **Drug delivery systems**

(**capsules**, soft; Chinese medicinal composition for treating inflammations, its preparation and quality control)

IT 50-70-4, Sorbitol, biological studies 50-99-7, Glucose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-65-8, Mannitol 77-92-9, Citric acid, biological studies 81-25-4, Cholic acid 87-69-4, Tartaric acid, biological studies 110-15-6, Succinic acid, biological studies 110-17-8, Fumaric acid, biological studies 822-16-2, Sodium stearate 1309-48-4, Magnesium oxide, biological studies **7647-14-5**, Sodium chloride, biological studies 7757-93-9, Calcium hydrogen phosphate 7778-18-9, Calcium sulfate **9004-32-4**, Carboxymethyl **cellulose**

9004-53-9, Dextrin **9004-57-3**, Ethyl **cellulose**
9004-64-2, Hydroxypropyl **cellulose** **9004-65-3**,
Hydroxypropyl methyl **cellulose** **9004-67-5**, Methyl
cellulose 9005-25-8, Starch, biological studies 9063-38-1,
Sodium Carboxymethyl starch 10043-35-3, Boric acid, biological studies
10103-46-5, Calcium phosphate 14807-96-6, Talc, biological studies
21645-51-2, Aluminum hydroxide, biological studies 21967-41-9, Baicalin
25322-68-3, Polyethylene glycol 106392-12-5, Poloxamer 188
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(Chinese medicinal composition for treating inflammations, its preparation
and quality control)

IT **9004-34-6, Cellulose**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microcryst.; Chinese medicinal composition for treating inflammations, its
preparation and quality control)

L117 ANSWER 15 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:547768 CAPLUS Full-text

DOCUMENT NUMBER: 145:34265

TITLE: Chinese medicinal composition for treating
gynecological disease, its preparation and quality
control

INVENTOR(S): Wang, Hengxin

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1679780	A	20051012	CN 2005-10031233	20050201
PRIORITY APPLN. INFO.:			CN 2005-10031233	20050201

AB The invention provides a Chinese medicinal composition in the form of capsule,
soft capsule, dripping pill or dispersible tablet to treat gynecol. disease.
The composition is prepared from Lonicera japonica stem 10.7-32.1, Spatholobus
suberectus stem 10.7-32.1, Cibotium barometz 10.7-32.1, Herba Taraxaci
(Taraxacum mongolicum and/or Taraxacum sinicum) 4.3-12.9, Leonurus japonicus
4.3-12.9, Herba Plantaginis (Plantago asiatica and/or Plantago depressa) 4.3-
12.9, Radix Paeoniae Rubra (Paeonia lactiflora and/or Paeonia veitchii) 2.6-
7.7, and Ligusticum chuanxiong 2.6-7.7%, by the steps of pulverizing the
materials into fine powders, decocting in **water**, filtering, concentrating to
give **extract**, precipitating with ethanol, collecting the supernatant,
concentrating to give **extract**, or further processing to give dried **extract**,
mixing with adjuvants, and making into desired dosage form. Also provided is
its identification by TLC and assaying of peoniflorin by HPLC.

IC ICM A61K035-78

ICS A61K009-20; A61K009-48; A61P015-00

CC 63-6 (Pharmaceuticals)

IT **Drug delivery systems**

(**capsules**, soft; Chinese medicinal composition for treating
gynecol. disease, its preparation and quality control)

IT **Drug delivery systems**

(**capsules**; Chinese medicinal composition for treating gynecol.
disease, its preparation and quality control)

IT 50-70-4, Sorbitol, biological studies 50-99-7, Glucose, biological
studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose

69-65-8, Mannitol 77-92-9, Citric acid, biological studies 81-25-4, Cholic acid 87-69-4, Tartaric acid, biological studies 110-15-6, Succinic acid, biological studies 110-17-8, Fumaric acid, biological studies 822-16-2, Sodium stearate 1309-48-4, Magnesium oxide, biological studies **7647-14-5**, Sodium chloride, biological studies 7757-93-9, Calcium hydrogen phosphate 7778-18-9, Calcium sulfate **9004-32-4**, Carboxymethyl **cellulose** 9004-53-9, Dextrin **9004-57-3**, Ethyl **cellulose** **9004-64-2**, Hydroxypropyl **cellulose** **9004-65-3**, Hydroxypropyl methyl **cellulose** **9004-67-5**, Methyl **cellulose** 9005-25-8, Starch, biological studies 9063-38-1, Sodium Carboxymethyl starch 10043-35-3, Boric acid, biological studies 10103-46-5, Calcium phosphate 14807-96-6, Talc, biological studies 21645-51-2, Aluminum hydroxide, biological studies 25322-68-3, Polyethylene glycol 106392-12-5, Poloxamer 188

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(Chinese medicinal composition for treating gynecol. disease, its preparation and quality control)

IT **9004-34-6, Cellulose**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(microcryst.; Chinese medicinal composition for treating gynecol. disease, its preparation and quality control)

L117 ANSWER 16 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:282234 CAPLUS Full-text

DOCUMENT NUMBER: 145:33945

TITLE: Oral traditional Chinese medicinal preparation for treating vascular headache and hemicrania

INVENTOR(S): Cao, Weizhong

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1660191	A	20050831	CN 2004-10047135	20041231
PRIORITY APPLN. INFO.:			CN 2004-10047135	20041231

AB The oral traditional Chinese medicinal preparation is comprised of rhizoma ligustici wallichii 30-50, radix bupleuri 2-10, dahurian angelica 1-5, cyperus tuber 6-10, white peony root 15-30, bunge cherry seed 2-10, white mustard seed 8-20, and licorice 2-10 %. The preparation process consists of grinding rhizoma ligustici wallichii, cyperus tuber, radix bupleuri, bunge cherry seed and dahurian angelica into raw powder, leaching with ethanol, recovering ethanol, pressure-relief concentrating; adding **water** and decocting medical dregs of rhizoma ligustici wallichii, cyperus tuber, radix bupleuri, bunge cherry seed and dahurian angelica, and addnl. medical materials for two time and 2 h every time, combining the decoction solution, concentrating, adding ethanol to 75 %, depositing for 48 h, recovering ethanol, and pressure-relief concentrating to obtain the **extractum**; combining above **extractum**, concentrating to obtain the **extractum**; or drying **extractum**, and grinding into dried cream powder; and adding proper adjuvant, homogenizing, pelleting, drying, and preparing capsule or enteric capsule, tablet and intumescent tablet. The adjuvant is lactose, starch, sodium carboxymethyl starch, etc., and the weight is 0.0-99.9 % of medicine.

IC ICM A61K035-78

ICS A61K009-48; A61K009-46; A61K009-20; A61P025-04; A61P029-00;
A61P025-06

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**; oral traditional Chinese medicinal preparation for
treating vascular headache and hemicrania)

IT **9004-34-6, Cellulose**, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(microcryst.; oral traditional Chinese medicinal preparation for treating
vascular headache and hemicrania)

IT 50-70-4, Sorbitol, biological studies 50-99-7, D-Glucose, biological
studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose
69-65-8, Mannitol 471-34-1, Calcium carbonate, biological studies
557-04-0, Magnesium stearate 1309-48-4, Magnesium oxide, biological
studies **7647-14-5**, Sodium chloride, biological studies
7757-93-9, Calcium hydrogen phosphate 7778-18-9, Calcium sulfate
9003-39-8, Polyvinylpyrrolidone **9004-32-4**, Carboxymethyl
cellulose 9004-53-9, Dextrin **9004-57-3**, Ethyl
cellulose **9004-64-2**, Hydroxypropyl **cellulose**
9004-65-3, Hydroxypropylmethyl **cellulose**
9004-67-5, Methyl **cellulose** 9005-25-8, Starch,
biological studies **9050-04-8**, Calcium carboxymethyl
cellulose 9063-38-1, Sodium carboxymethyl starch 10043-35-3,
Boric acid, biological studies 14807-96-6, Talc, biological studies
21645-51-2, Aluminum hydroxide, biological studies 25322-68-3,
Polyethylene glycol
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL
(Biological study); USES (Uses)
(oral traditional Chinese medicinal preparation for treating vascular
headache and hemicrania)

L117 ANSWER 17 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:57259 CAPLUS Full-text

DOCUMENT NUMBER: 144:135298

TITLE: Targeting bididus microcapsule and its preparation

INVENTOR(S): Cui, Yunlong

PATENT ASSIGNEE(S): Beijing Dongfang Baixin Biotechnology Co., Ltd., Peop.
Rep. China; Beijing Puerkang Pharmaceutical Hi-Tech
Co., Ltd.

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1613455	A	20050511	CN 2003-10103248	20031104
PRIORITY APPLN. INFO.:			CN 2003-10103248	20031104

AB The targeting bididus microcapsule is comprised of bididus and/or protective agent and trilaminar protective layer. The first layer is primary microcapsule embedding active thallus of bididus after cross linking of protein and transglutaminase. The second layer is ungraded microcapsule embedding with hydrogenated oil and fat and its m.p. is 30-40°. The third layer is primary microcapsule coating with controlled-release coating material. The bididus is from one or more of bacilli and bifidobacterium. The protective agent is one or more of milk powder, defatted milk powder,

trehalose, NaCl, pentitol, amino acid and its salt, glycerin, lactose, starch, sodium Isovitamin C, phosphate, etc. The ratio of bididus and protective agent is 1:0.1-1:20. The primary microcapsule contains defatted milk powder 1-30%, trehalose 2-30%, NaCl 0.1-3%, and glycerin 0.1-1%. The protein is gelatin, milky protein, soybean protein, zein, and collagen, and the dosage is 1-20% amount of fungus powder. The enzyme is transglutaminase, and the dosage is 1-20% amount of primary microcapsule, and the cross linked temperature is 20-70°. The ratio of primary microcapsule and diluent is 1:1-1:200. The controlled-release coating material is from one or more of zein **extract**, sodium alginate, acrylic acid, acrylic acid resin, shellac, hydroxypropyl **methylcellulose**, etc., and the dosage is 1-20% amount of primary microcapsule. The solvent of coating material is one or more of **water**, ethanol, etc. The plasticizer is polyethylene glycol, propylene glycol, glycerin, tri-Et citrate, etc., the dosage is 1-50% amount of coating material. The targeting bididus microcapsule is prepared by the following steps of (1) embedding bididus and/or protective agent with protein after cross linking with transglutaminase, freeze drying to prepare primary microcapsule; (2) mixing primary microcapsule and proper diluent, preparing ungraded microcapsule in coating machine of fluidized-bed with primary microcapsule coating with hydrogenated oil and fat at 20-70°; and (3) coating ungraded microcapsule with controlled-release coating material to prepare the end microcapsule product.

IC ICM A61K035-74
ICS A61K009-50; A61P037-04; A61P003-06; A61P035-00; A61P001-00
CC 63-6 (Pharmaceuticals)
IT **Drug delivery systems**
(**microcapsules**; targeting bididus **microcapsule** and its preparation)
IT 79-10-7, Acrylic acid, biological studies 9003-01-4, Acrylic acid resin 9004-65-3, Hydroxypropyl **methylcellulose** 9005-38-3, Sodium alginate
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(targeting bididus microcapsule and its preparation)
IT 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 63-42-3, Lactose 77-93-0, Triethyl citrate 99-20-7, Trehalose 6381-77-7, Sodium Isovitamin C 6917-36-8, Pentitol 7647-14-5, Sodium chloride (NaCl), biological studies 9005-25-8, Starch, biological studies 25322-68-3, Polyethylene glycol 137741-97-0, Transglutaminase
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(targeting bididus microcapsule and its preparation)

L117 ANSWER 18 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:60341 CAPLUS Full-text
DOCUMENT NUMBER: 140:117406
TITLE: Liquid dosage compositions of stable nanoparticulate drugs
INVENTOR(S): Bosch, William H.; Hilborn, Matthew R.; Hovey, Douglas C.; Kline, Laura J.; Lee, Robert W.; Pruitt, John D.; Ryde, Niels P.; Ryde, Tuula A.; Xu, Shuqian
PATENT ASSIGNEE(S): Elan Pharma International, Ltd, Ire.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 18
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004006959	A1	20040122	WO 2003-US22187	20030716
WO 2004006959	A8	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492488	A1	20040122	CA 2003-2492488	20030716
AU 2003261167	A1	20040202	AU 2003-261167	20030716
EP 1551457	A1	20050713	EP 2003-764723	20030716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005536512	T	20051202	JP 2004-521891	20030716
PRIORITY APPLN. INFO.:			US 2002-396530P	P 20020716
			WO 2003-US22187	W 20030716

AB The present invention relates to liquid dosage compns. of stable nanoparticulate drugs. The liquid dosage compns. of the invention include osmotically active crystal growth inhibitors that stabilize the nanoparticulate active agents against crystal and particle size growth of the drug. Thus, an **aqueous** nanoparticulate colloidal dispersion (NCD) comprising drug 32.5 Copovidone 6.5, and dioctyl sodium sulfosuccinate 0.464% by weight was prepared by milling for 3.8 h under high energy milling conditions. The final mean particle size (by weight) of the drug particles was 161 nm. The concentrated NCD was then diluted with preserved **water** and glycerol (the osmotically active crystal growth inhibitor) to 0.5-3.0% drug.

IC ICM A61K047-02
ICS A61K047-10; A61K047-26; A61K009-10; A61K009-14; A61K031-192; A61K031-58

CC 63-6 (Pharmaceuticals)

IT **Drug delivery systems**
(**capsules**; liquid dosage compns. of stable nanoparticulate drugs)

IT Fruit
Vegetable
(**exts.**; liquid dosage compns. of stable nanoparticulate drugs)

IT 50-35-1, Thalidomide 50-44-2, Mercaptopurine 50-53-3, Chlorpromazine, biological studies 50-78-2, Acetylsalicylic acid 50-99-7, Glucose, biological studies 52-53-9, Verapamil 56-81-5, Glycerol, biological studies 56-85-9, Glutamine, biological studies 57-09-0, Hexadecyltrimethylammonium bromide 57-11-4, Stearic acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 58-32-2, Dipyrindamole 59-30-3, Folic acid, biological studies 62-49-7D, Choline, esters 63-42-3, Lactose 64-17-5, Ethanol, biological studies 67-45-8, Furazolidone 69-65-8, Mannitol 69-89-6D, Xanthine, derivs. 73-31-4, Melatonin 75-65-0, biological studies 80-74-0, Acetylsulfisoxazole 87-99-0, Xylitol 99-20-7, Trehalose 102-71-6, Triethanolamine, biological studies 110-86-1D, Pyridine, quaternized, salts 112-00-5, Lauryltrimethylammonium chloride 123-03-5, CPC 129-03-3, Cyproheptadine 132-17-2, Benztropine mesylate 134-32-7D, 1-Naphthylamine, alkyltrimethylammonium salts 139-07-1, Lauryldimethylbenzylammonium chloride 140-72-7, Cetylpyridinium bromide 143-67-9, Vinblastine sulfate 148-79-8, Thiabendazole 151-21-3, SDS,

biological studies 154-42-7, Thioguanine 288-32-4D, Imidazole, quaternized, salts 303-53-7, Cyclobenzaprine 396-01-0, Triamterene 500-92-5, Proguanil 502-65-8, Lycopene 645-05-6, Altretamine 846-50-4, Temazepam 1119-94-4, Dodecyltrimethylammonium bromide 1119-97-7, Tetradecyltrimethylammonium bromide 1200-22-2, Lipoic acid 1327-43-1, Magnesium aluminum silicate 1592-23-0, Calcium Stearate 1643-19-2, Tetrabutylammonium bromide 1951-25-3, Amiodarone 1977-10-2, Loxapine 2062-78-4, Pimozide 2082-84-0, Decyltrimethylammonium bromide 2609-46-3, Amiloride 3416-24-8, Glucosamine 3458-28-4, Mannose 4205-90-7, Clonidine 4342-03-4, Dacarbazine 5137-55-3, Methyltriethylammonium chloride 5350-41-4, Benzyltrimethylammonium bromide 7173-51-5, Dimethyldidecylammonium chloride 7281-04-1, Lauryldimethylbenzylammonium bromide 7447-40-7, Potassium chloride (KCl), biological studies **7647-14-5**, Sodium chloride, biological studies **7786-30-3**, Magnesium chloride (MgCl₂), biological studies 9000-01-5, Gum acacia 9000-30-0D, Guar gum, cationic derivs. 9000-65-1, Tragacanth gum 9001-63-2, Lysozyme 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Polyvinylpyrrolidone **9004-32-4**, **9004-34-6**, **Cellulose**, biological studies 9004-54-0, Dextran, biological studies **9004-62-0**, Hydroxyethyl **cellulose** **9004-64-2**, Hydroxypropyl **cellulose** **9004-65-3**, Hypromellose **9004-67-5**, Methyl **cellulose** 9004-99-3, Polyethylene glycol stearate 9005-32-7, Alginic acid 9007-12-9, Calcitonin 9007-27-6, Chondroitin 9011-14-7, Poly(methyl methacrylate) 9011-14-7D, Poly(methyl methacrylate), hydrolyzed, trimethylammonium salts **9050-04-8**, **Cellulose**, carboxymethyl ether, calcium salt **9050-31-1**, Hydroxypropyl methyl **cellulose** phthalate 10118-90-8, Minocycline 12441-09-7D, Sorbitan, esters 13292-46-1, Rifampin 16679-58-6, Desmopressin 18186-71-5, Dodecyltriethylammonium bromide 24280-93-1 25086-89-9, Vinyl acetate-1-vinyl-2-pyrrolidone copolymer 25301-02-4, Ethylene oxide-formaldehyde-4-(1,1,3,3-Tetramethylbutyl)phenol copolymer 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, phospholipid derivs. 26062-79-3, Poly(diallyldimethylammonium chloride) 27195-16-0, Sucrose distearate 27321-96-6, Polyethylene glycol cholesteryl ether 28228-56-0 28679-24-5, Dodecylbenzyltriethylammonium chloride 28981-97-7, Alprazolam 29094-61-9, Glipizide 29767-20-2, Teniposide 29836-26-8, n-Octyl- β -D-glucopyranoside 31431-39-7, Mebendazole 31566-31-1, Glyceryl monostearate 33419-42-0, Etoposide 34911-55-2, Bupropion 36735-22-5, Quazepam 37318-31-3, Sucrose stearate 38443-60-6, Decyltriethylammonium chloride 39809-25-1, Penciclovir 42399-41-7, Diltiazem 51264-14-3, Amsacrine 51569-39-2, Olin 10G 52128-35-5, Trimetrexate 52467-63-7, Tricetylmethylammonium chloride 55008-57-6 55268-75-2, Cefuroxime 55348-40-8, Triton X-200 58846-77-8, n-Decyl β -D-glucopyranoside 59080-45-4, n-Hexyl β -D-glucopyranoside 59122-55-3, n-DoDecyl β -D-glucopyranoside 59277-89-3, Acyclovir 65271-80-9, Mitoxantrone 65277-42-1, Ketoconazole 66085-59-4, Nimodipine 69227-93-6, n-DoDecyl β -D-maltoside 69984-73-2, n-Nonyl β -D-glucopyranoside 70458-96-7, Norfloxacin 72509-76-3, Felodipine 72558-82-8, Ceftazidime 72559-06-9, Rifabutin 73590-58-6, Omeprazole 76095-16-4, Enalapril maleate 76420-72-9, Enalaprilat 76824-35-6, Famotidine 78617-12-6, n-Heptyl β -D-glucopyranoside 79617-96-2, Sertraline 79794-75-5, Loratadine 81098-60-4, Cisapride 81103-11-9, Clarithromycin 81409-90-7, Cabergoline **81859-24-7**, Polyquat 10 82494-09-5, n-Decyl β -D-maltoside 84449-90-1, Raloxifene 85261-19-4, Nonanoyl-N-methylglucamide 85261-20-7, Decanoyl-N-methylglucamide 85316-98-9 85618-20-8, n-Heptyl β -D-thioglucofuranoside 85618-21-9, n-Octyl- β -D-thioglucofuranoside 85721-33-1,

Ciprofloxacin 86386-73-4, Fluconazole 87679-37-6, Trandolapril 91161-71-6, Terbinafine 95233-18-4, Atovaquone 97322-87-7, Troglitazone 100286-97-3, Milrinone lactate 101397-87-9, D-Glucitol, 1-deoxy-1-[methyl(1-oxoheptyl)amino]- 103577-45-3, Lansoprazole 104987-11-3, Tacrolimus 106266-06-2, Risperidone 106392-12-5, Pluronic 107397-59-1, Tetronic 150R8 110617-70-4, Poloxamine 113665-84-2, Clopidogrel 115956-12-2, Dolasetron 127666-00-6 127779-20-8, Saquinavir 132539-06-1, Olanzapine 136817-59-9, Delavirdine 138402-11-6, Irbesartan 139481-59-7, Candesartan 139755-83-2, Sildenafil 144034-80-0, Rizatriptan 145599-86-6, Cerivastatin 147059-72-1, Trovafloxacin 159989-65-8, Nelfinavir mesylate 283158-20-3 329326-68-3, p-Isononylphenoxypolyglycidol 503178-50-5 608094-65-1, PEG-vitamin A 630400-66-7 630400-67-8 634601-99-3

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(liquid dosage comps. of stable nanoparticulate drugs)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 19 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1082025 CAPLUS Full-text

DOCUMENT NUMBER: 142:33043

TITLE: Porphyrins and metalloporphyrins for inhibiting heme iron uptake

INVENTOR(S): Bommer, Jerry C.

PATENT ASSIGNEE(S): Frontier Scientific, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004254155	A1	20041216	US 2004-859810	20040603
US 7008937	B2	20060307		
AU 2004247099	A1	20041223	AU 2004-247099	20040604
CA 2528090	A1	20041223	CA 2004-2528090	20040604
WO 2004110377	A2	20041223	WO 2004-US17828	20040604
WO 2004110377	A3	20050811		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1641391	A2	20060405	EP 2004-754439	20040604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				

BR 2004011123	A	20060718	BR 2004-11123	20040604
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PRIORITY APPLN. INFO.:	US 2003-477178P	P	20030610
	US 2004-859810	A	20040603
	WO 2004-US17828	W	20040604

AB The present invention provides a class of porphyrins and metal chelated porphyrins for use as inhibitors of heme iron uptake. The porphyrin/metal

chelated porphyrin mols. of the invention are tetra-pos. charged porphyrins based on meso-tetra(4-pyridyl)porphines. Several such agents are shown herein to cause inhibition of iron uptake in vivo and in vitro. The invention further provides therapeutic compns. including the porphyrins and/or metalloporphyrins of the invention. In addition, methods of inhibition of heme iron uptake in vivo are taught, as well as methods of treatment of diseases characterized by iron-overload. These methods include the administration of a porphyrin or metalloporphyrin in a therapeutic composition of the invention to prevent uptake of heme iron, thus preventing replenishment of a patient's iron stores.

IC ICM A61K031-555

INCL 514185000; X51-441.0

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT **Drug delivery systems**

(**capsules**; porphyrins and metalloporphyrins for inhibiting heme iron uptake in combination with chelating agent)

IT 57-50-1, Sucrose, biological studies 9003-39-8, Povidone

9004-32-4, Sodium carboxymethylcellulose

9004-57-3, Ethylcellulose 9004-65-3,

Hydroxypropyl **methylcellulose 9004-67-5,**

Methylcellulose

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(binding agent; porphyrins and metalloporphyrins for inhibiting heme iron uptake in combination with chelating agent)

IT **7647-14-5, Sodium chloride, biological studies 9005-25-8,**

Starch, biological studies 9005-32-7, Alginic acid

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(carrier; porphyrins and metalloporphyrins for inhibiting heme iron uptake in combination with chelating agent)

IT **9004-34-6, Cellulose, biological studies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(microcryst., carrier; porphyrins and metalloporphyrins for inhibiting heme iron uptake in combination with chelating agent)

IT **7732-18-5, Water, biological studies**

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(pharmaceutical medium; porphyrins and metalloporphyrins for inhibiting heme iron uptake in combination with chelating agent)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 20 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:529193 CAPLUS Full-text

DOCUMENT NUMBER: 143:292467

TITLE: Manufacture and detection of medicine containing salidroside for treating coronary heart disease

INVENTOR(S): Xiao, Wei; Yang, Yin; Dai, Xiangling

PATENT ASSIGNEE(S): Jiangsu Kangyuan Pharmaceutical Industry Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp. given

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1526401	A	20040908	CN 2003-119286	20030307
PRIORITY APPLN. INFO.:			CN 2003-119286	20030307

AB The title medicine is manufactured from *Rhodiola kirilowii* through **extn** ., and its active component is salidroside. The salidroside can be identified by thin layer chromatog. (developing agent = Et acetate, methanol and formic acid at a volume ratio of 9:1:0.8; color reagent = 1% FeCl₃ and 1% potassium ferricyanide at a ratio of 1:1), and its content can be detected by high performance liquid chromatog. (filler = octadecyl silane bonded to silica gel; mobile phase = methanol, **water** and glacial acetic acid at a volume ratio of 7:93:1; flowing rate = 9:1:0.8; detection wavelength = 276 nm; column temperature = 40°C; number of theoretic column plate>7000).

IC ICM A61K031-7028
ICS A61K035-78; A61P009-10; G01N033-15; G01N030-02

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**; manufacture and detection of medicine containing salidroside for treating coronary heart disease)

IT Antianginal agents
Extraction
HPLC
Liquid chromatography
Sedum kirilowii
Solvent **extraction**
TLC (thin layer chromatography)
Ultrafiltration
(manufacture and detection of medicine containing salidroside for treating coronary heart disease)

IT 64-17-5, Ethanol, uses 64-18-6, Formic acid, uses 64-19-7, Acetic acid, uses 67-56-1, Methanol, uses 141-78-6, Ethyl acetate, uses 1310-73-2, Sodium hydroxide, uses 7705-08-0, Ferric chloride, uses **9004-32-4**, Sodium **carboxymethylcellulose** 13746-66-2, Potassium ferricyanide 18623-11-5, Octadecyl silane
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture and detection of medicine containing salidroside for treating coronary heart disease)

IT **7647-14-5**, Sodium chloride, biological studies 9005-25-8, Starch, biological studies 9005-65-6, Tween 80
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(manufacture and detection of medicine containing salidroside for treating coronary heart disease)

L117 ANSWER 21 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1149255 CAPLUS Full-text
DOCUMENT NUMBER: 142:469192
TITLE: Ginseng-monkshood controlled-release microcapsule for treating qi asthenia and yang depletion and formulation
INVENTOR(S): Zeng, Xiaochun
PATENT ASSIGNEE(S): Sanjiu Pharmaceutical Co., Ltd., Ya'an, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 47 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1488341	A	20040414	CN 2003-135752	20030904
PRIORITY APPLN. INFO.:			CN 2003-135752	20030904

AB The ginseng-monkshood composite **extract** is composed of 4.5- 7.5 part Panax ginseng **extract** and 9-15 part Aconitum carmichaeli root **extract**. The ginseng-monkshood composite **extract** is prepared by solvent **extraction** or ultrasonic wave-assisted solvent **extract** of Panax ginseng, Aconitum carmichaeli root, or both, and purified on macroporous resin column. The controlled-release microcapsule of the ginseng-monkshood composite **extract** is prepared by adding the composite **extract** in 30-50 g/L gelatin solution (pH 5-7.4) to obtain suspension or O/W type emulsion, adjusting with acetic acid at 50° for pH 3.5-8, and solidifying at pH 8-9. The microcapsule may be prepared by (1) mixing with 5-15% Et **cellulose**/ethanol solution and Mg stearate, and spray freezing via compressed air; (2) adding in CM- **cellulose** solution, agglomerating under dropping Al₂(SO₄)₃, and drying at 80°; (3) suspending the composite **extract** in Na alginate solution, gelatinizing with CaCl₂ solution, vacuum drying at 60° for 12 h; (4) mixing with 25-50 g/L gelatin solution and 25-50 g/L arabic gum solution to form suspension or O/W type emulsion, adding 50 g/L acetic acid at 50-55° to pH 4.0-4.5 to agglomerate, diluting with **water** to precipitate, curing with formaldehyde at pH 8-9, washing with **water** to remove formaldehyde; and (5) adding the composite **extract** in Et **cellulose**/ethanol solution, spray drying to obtain microcapsule, and mixing with antisticking agent (such as talc, Mg stearate, etc). The ginseng-monkshood composite **extract** may be used to prepare other medical formulations (such as tablet, dropping pill, capsule, granule, spray, oral solution, injection, freeze-dried powder injection, transfusion, powder injection, etc).

IC ICM A61K009-52
ICS A61K035-78; A61P001-14

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT Panax ginseng
(**extract**; ginseng-monkshood slow-release microcapsule for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(granules; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(injections, freeze-dried, powder; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(injections, i.v.; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(injections, powder; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(injections; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(liqs., oral; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(**microcapsules**, controlled-release; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(powders, freeze-dried injection; ginseng-monkshood slow-release

microcapsule for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(powders, injection; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT Aconitum carmichaelii
(root **extract**; ginseng-monkshood slow-release microcapsule for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(sprays; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(tablets, dropping; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT **Drug delivery systems**
(tablets; ginseng-monkshood slow-release **microcapsule** for treating qi asthenia and yang depletion and formulation)

IT 56-81-5, Glycerol, biological studies 69-65-8, D-Mannitol 75-71-8, Dichlorodifluoromethane 557-04-0, Magnesium stearate 1309-37-1, Ferric oxide, biological studies 1344-28-1, Alumina, biological studies 7631-86-9, Silica, biological studies 7757-82-6, Sodium sulfate, biological studies 9000-01-5, Arabic gum **9004-32-4**, Carboxymethyl **cellulose 9004-57-3**, Ethyl **cellulose** 9005-38-3, Sodium alginate 9005-65-6, Tween-80 10043-01-3, Aluminum sulfate **10043-52-4**, Calcium chloride, biological studies 13463-67-7, Titania, biological studies 14807-96-6, Talc, biological studies 25322-68-3, Polyethylene glycol 31566-31-1, Glycerol monostearate

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ginseng-monkshood slow-release microcapsule for treating qi asthenia and yang depletion and formulation)

L117 ANSWER 22 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:931185 CAPLUS Full-text

DOCUMENT NUMBER: 140:744

TITLE: 5-HT4 receptor antagonists for the treatment of heart failure

INVENTOR(S): Levy, Finn Olav

PATENT ASSIGNEE(S): Medinnova SF, Norway; Dzieglewska, Hanna

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097065	A1	20031127	WO 2003-GB2134	20030516
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

CA 2485600 A1 20031127 CA 2003-2485600 20030516
 AU 2003227949 A1 20031202 AU 2003-227949 20030516
 EP 1503764 A1 20050209 EP 2003-725415 20030516
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 US 2006094715 A1 20060504 US 2005-514386 20050826
 PRIORITY APPLN. INFO.: GB 2002-11230 A 20020516
 WO 2003-GB2134 W 20030516

AB This invention provides the use of a 5-HT4 receptor antagonist in the manufacture of a medicament for treating or preventing heart failure. Particular heart disorders to be treated are selected from the group comprising chronic heart failure, congestive heart failure, chronic congestive heart failure and heart failure resulting from ischemic heart disease. Methods of treating heart failure using 5-HT4 receptor antagonists and pharmaceutical compns. containing 5-HT4 receptor antagonists are also provided. Treatment of post-infarction congestive heart failure in rats with 5-HT4 receptor antagonist SB207266 showed a trend towards normalization of myocardial function.

IC ICM A61K031-5365
 ICS A61K031-454; A61K031-445; A61P009-04

CC 1-8 (Pharmacology)
 Section cross-reference(s): 63

IT **Drug delivery systems**
 (capsules; 5-HT4 receptor antagonists for treatment of heart failure)

IT 63-42-3, Lactose 557-04-0, Magnesium stearate **7647-14-5**, Sodium chloride, biological studies **7732-18-5, Water**, biological studies

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (5-HT4 receptor antagonists for treatment of heart failure)

IT **9004-34-6, Cellulose**, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (microcryst.; 5-HT4 receptor antagonists for treatment of heart failure)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 23 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:436322 CAPLUS Full-text
 DOCUMENT NUMBER: 142:487390
 TITLE: Chelidonium majus **extract**, its preparation and application
 INVENTOR(S): Zhang, Ping
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1429611	A	20030716	CN 2003-101200	20030121
PRIORITY APPLN. INFO.:			CN 2003-101200	A 20030121
			CN 2002-134733	20020913

AB The Chelidonium majus **extract** with chelidonine content of 0.5-10%, fumarine 0.1-8%, and total alkaloid of 0.6-20% is isolated by **extg** . with **water-alc.** under refluxing, concentrating, adjusting with 0.5-1.5M H3PO4 solution to pH 1.5-4.5, precipitating at 5-10° for >10 h, adjusting the filtrate with 5- 40%

NaOH solution to pH 9-11.5, **extg** . with chloroform 2-8 times, concentrating, and vacuum drying. The **ext** . may be used to prepare the antitumor and analgesic medical preps. The injection, powder injection, and capsule of the **extract** were prepared

IC ICM A61K035-78
ICS A61K031-4355; A61P035-00; A61P029-00; C07D491-153
CC 63-4 (Pharmaceuticals)
ST Chelidonium majus **ext** injection antitumor
IT Antitumor agents
Chelidonium majus
(Chelidonium majus **extract** preparation and application)
IT **Drug delivery systems**
(**capsules**; Chelidonium majus **extract** preparation and application)
IT Drug delivery systems
(injections; Chelidonium majus **extract** preparation and application)
IT 69-65-8, Mannitol 100-51-6, Benzyl alcohol, biological studies
117-52-2, Fumarine 476-32-4, Chelidonine 557-04-0, Magnesium stearate
7647-14-5, Sodium chloride, biological studies **9004-32-4**
, Sodium carboxymethyl **cellulose** 9005-65-6, Tween-80
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Chelidonium majus **extract** preparation and application)

L117 ANSWER 24 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:658740 CAPLUS Full-text
DOCUMENT NUMBER: 137:190770
TITLE: In-situ gel formation of pectin
INVENTOR(S): Ni, Yawei; Yates, Kenneth M.
PATENT ASSIGNEE(S): Carrington Laboratories Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002119941	A1	20020829	US 2001-795897	20010228
US 6777000	B2	20040817		
CA 2439570	A1	20020906	CA 2002-2439570	20020227
WO 2002067897	A2	20020906	WO 2002-US5974	20020227
WO 2002067897	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1372606	A2	20040102	EP 2002-780737	20020227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1531419	A	20040922	CN 2002-807315	20020227
JP 2005506284	T	20050303	JP 2002-567265	20020227
US 2005084534	A1	20050421	US 2003-652622	20030829
PRIORITY APPLN. INFO.:			US 2001-795897	A 20010228

AB A composition, method of preparation, and a method of use of a pectin in-situ gelling formulation for the delivery and sustained release of a physiol. active agent to the body of an animal are described. The pectin can be isolated from Aloe vera. For example, Aloe pectin preparation (0.5%, weight/volume) in physiol. saline was directly applied to fresh full-thickness excisional skin wounds on mice or rats. A 0.5% (weight/volume) CM-**cellulose** (CMC) preparation in physiol. saline and a com. hydrogel wound dressing were used as a control. The wounds were made with a biopsy punch in accordance with animal use protocols. After 4 h, rats were sacrificed and wounds surgically removed and examined. A layer of gel was clearly formed on the surface of wounds with the Aloe pectin preparation but not with CMC or the com. hydrogel wound dressing.

IC ICM A61K048-00
ICS A61K038-00; A61K009-14

INCL 514044000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Drug delivery systems**
(**capsules**, sustained-release; in-situ gel formation of pectin for sustained drug release)

IT Animals
Buffers
Diagnostic agents
Gelation
Physiological **saline solutions**
Thickening agents
(in-situ gel formation of pectin for sustained drug release)

IT 7440-23-5D, Sodium, salts 7440-70-2, Calcium, biological studies
7647-14-5, Sodium chloride, biological studies **10043-52-4**, Calcium chloride, biological studies
RL: BSU (Biological study, unclassified); **THU (Therapeutic use)**;
BIOL (Biological study); USES (Uses)
(gelation in presence of; in-situ gel formation of pectin for sustained drug release)

IT **9004-32-4**, Carboxymethyl **cellulose** sodium 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid **9004-62-0**, Hydroxyethyl **cellulose** **9004-65-3**, Hydroxypropyl methyl **cellulose** 9005-32-7, Alginate acid 9005-38-3, Sodium alginate 12619-70-4, Cyclodextrin
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(thickener; in-situ gel formation of pectin for sustained drug release)

REFERENCE COUNT: 211 THERE ARE 211 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 25 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:832103 CAPLUS Full-text

DOCUMENT NUMBER: 139:73897

TITLE: Characterization of microcapsules: recommended methods based on round-robin testing

AUTHOR(S): Rosinski, S.; Grigorescu, G.; Lewinska, D.; Ritzen, L. G.; Viernstein, H.; Teunou, E.; Poncelet, D.; Zhang, Z.; Fan, X.; Serp, D.; Marison, I.; Hunkeler, D.

CORPORATE SOURCE: Institute of Biocybernetics and Biomedical Engineering, Warsaw, Pol.

SOURCE: Journal of Microencapsulation (2002), 19(5), 641-659
CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Alginate beads, as well as microcapsules based on alginate, **cellulose** sulfate and polymethylene-co-guanidine, were produced at diams. of 0.4, 1.0 and 1.5 mm. These standard materials were tested, by independent labs., in regards to **water activity**, bead or capsule size, mech. resistance and transport behavior. The **water activity** and mech. resistance were observed to increase with bead and capsule size. Transport properties (ingress) were assessed using a variety of low molar mass and macromol. probes. It was observed that the penetration of Vitamin B12 increased with bead diameter, as did dextran penetration. However, for the membrane-containing microcapsules, larger membrane thickness, observed for the larger capsules, retarded ingress. The authors, who are part of a European working group, recommend that permeability be assessed either using a large range of probes or a broad molar mass standard, with measurements at one or two molar masses insufficient to simulate the behavior in application. Mech. compression is seen as a good means to estimate elasticity and rupture of beads and capsules, with the sensitivity of the force transducer, which can vary from μN to tens of N, required to be tuned to the anticipated bead or capsule strength. Overall, with the exception of the mech. properties, the precision in the inter-laboratory testing was good. Furthermore, the various methods of assessing transport properties agreed, in ranking, for the beads and capsules characterized, with gels having smaller radii being less permeable. For microcapsules, the permeation across the membrane dominates the ingress, and thicker membranes have lower permeability.

CC 63-6 (Pharmaceuticals)

ST alginate **cellulose** Vitamin B12 microcapsule bead

IT **Drug delivery systems**

(beads; characterization of **microcapsules**)

IT **Drug delivery systems**

(**microcapsules**; characterization of **microcapsules**)

IT 68-19-9, Vitamin B12 9004-54-0, Dextran, biological studies

9005-22-5, Sodium **cellulose** sulfate 9005-38-3, Sodium

alginate 10043-52-4, Calcium chloride, biological studies

55295-98-2

RL: PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological

study); USES (Uses)

(characterization of microcapsules)

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L117 ANSWER 26 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:135969 CAPLUS Full-text

DOCUMENT NUMBER: 124:185620

TITLE: A method for treating capsules used for drug storage

INVENTOR(S): Clark, Andrew R.; Gonda, Igor

PATENT ASSIGNEE(S): Genentech, Inc., USA

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9601105	A1	19960118	WO 1995-US8310	19950629
W: CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5641510	A	19970624	US 1994-270195	19940701

CA 2191709	A1	19960118	CA 1995-2191709	19950629
EP 768873	A1	19970423	EP 1995-925430	19950629
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10502283	T	19980303	JP 1995-503945	19950629
PRIORITY APPLN. INFO.:			US 1994-270195	A 19940701
			WO 1995-US8310	W 19950629

AB Capsules (such as hard gelatin, **cellulose** and plastic capsules) containing pharmaceutical powders which are administered to a patient via inhalation are treated so as to increase the effective amount of the pharmaceutical agent reaching the respiratory system of the patient. The capsules are coated internally with a lubricant during manufacture and in one aspect, the method involves exposing the lubricant-coated inner surface of the capsule to a pharmaceutically acceptable solvent which dissolves the lubricant. Generally, the solvent is volatile, and bactericidal (e.g. ethanol). The pharmaceutical powder is inserted in the capsule following this washing procedure. Alternatively, the lubricant-coated capsule is dusted internally with a dusting agent such as a salt (e.g. sodium chloride) or a sugar (e.g. lactose, mannitol, trehalose or sucrose) prior to inserting the pharmaceutical powder inside the capsule. The invention also pertains to a capsule, optionally containing the pharmaceutical powder therein, which has been treated according to the methods discussed above.

IC ICM A61K009-48

ICS A61J003-07

CC 63-6 (Pharmaceuticals)

IT **Pharmaceutical dosage forms**

(**capsules**, lubricant-treated **capsules** for drug storage and their preparation)

IT 50-70-4, Sorbitol, biological studies 50-99-7, Dextrose, biological studies 56-23-5, Carbon tetrachloride, biological studies 57-11-4, Stearic acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-63-0, IsoPropanol, biological studies 67-66-3, Chloroform, biological studies 69-65-8, Mannitol 69-79-4, Maltose 71-23-8, Propanol, biological studies 71-43-2, Benzene, biological studies 87-99-0, Xylitol 99-20-7, Trehalose 111-27-3, Hexanol, biological studies 143-07-7, Lauric acid, biological studies 147-81-9, Arabinose 151-21-3, Sodium lauryl sulfate, biological studies 532-32-1, Sodium benzoate 557-04-0, Magnesium stearate 637-12-7, Aluminum stearate 1592-23-0, Calcium stearate 3097-08-3, Magnesium lauryl sulfate 7447-40-7, Potassium chloride, biological studies **7647-14-5**, Sodium chloride, biological studies **7732-18-5**, **Water**, biological studies **9004-34-6**, **Cellulose**, biological studies 9004-53-9, Dextrin 9004-54-0, Dextran, biological studies **9004-67-5**, Methyl **Cellulose** 9005-25-8, Starch, biological studies 10043-35-3, Boric acid, biological studies 25322-68-3, Polyethylene glycol

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(lubricant-treated capsules for drug storage and their preparation)

L117 ANSWER 27 OF 62

MEDLINE on STN

DUPLICATE 2

ACCESSION NUMBER: 2003291945 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 12818816

TITLE: Preparation and evaluation of sustained release microspheres of potassium chloride prepared with **ethylcellulose**.

AUTHOR: Wu Pao-Chu; Huang Yaw-Bin; Chang Jui-I; Tsai Ming-Jun; Tsai

Yi-Hung
CORPORATE SOURCE: School of Pharmacy, Kaohsiung Medical University, 100
Shih-Chen 1st Road, Kaohsiung 807, Taiwan, ROC.
SOURCE: International journal of pharmaceutics, (2003 Jul 9) Vol.
260, No. 1, pp. 115-21.
Journal code: 7804127. ISSN: 0378-5173.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 24 Jun 2003
Last Updated on STN: 23 Sep 2003
Entered Medline: 22 Sep 2003

ABSTRACT:

The **water**-insoluble polymer **ethylcellulose** is used as a retardant to prepare the sustained release of potassium chloride microspheres by drying in a liquid process. The effect of sustained release of potassium from **ethylcellulose** microspheres was evaluated by the in vitro dissolution test, and was compared to a commercial product (Slow-K). The results showed that **ethylcellulose** microspheres loaded with potassium chloride could be easily prepared and satisfactory results could be obtained considering size distribution and shapes of microspheres by incorporating aluminum stearate. The **encapsulation** efficiency and loading capacity were about 84-93 and 36%, respectively. However, the potassium/*****ethylcellulose***** 2/2 (30-45 mesh) microspheres showed the similar sustained release effect of commercial product.

CONTROLLED TERM: Acrylic Resins: CH, chemistry
*Cellulose: AA, analogs & derivatives
*Cellulose: CH, chemistry
Delayed-Action Preparations
Drug Carriers
Kinetics
Microscopy, Electron, Scanning
Microspheres
Particle Size
Potassium Chloride: AD, administration & dosage
*Potassium Chloride: CH, chemistry
Solubility
Stearic Acids: CH, chemistry
Surface Properties
Technology, Pharmaceutical
CAS REGISTRY NO.: 33434-24-1 (Eudragit RS); 57-11-4 (stearic acid); 7447-40-7 (Potassium Chloride); 9004-34-6 (Cellulose); 9004-57-3 (ethyl cellulose)
CHEMICAL NAME: 0 (Acrylic Resins); 0 (Delayed-Action Preparations); 0 (Drug Carriers); 0 (Stearic Acids)

L117 ANSWER 28 OF 62 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2000426323 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10825563
TITLE: Monolithic osmotic tablet system for nifedipine delivery.
AUTHOR: Liu L; Khang G; Rhee J M; Lee H B
CORPORATE SOURCE: Department of Polymer Science and Technology, Chonbuk National University, 664-14 Dukjin Dong, Dukjin Ku, 561-756, Chonju, South Korea.
SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (2000 Jul 3) Vol. 67, No. 2-3,

pp. 309-22.
 Journal code: 8607908. ISSN: 0168-3659.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: (COMPARATIVE STUDY)
 Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200009
 ENTRY DATE: Entered STN: 22 Sep 2000
 Last Updated on STN: 22 Sep 2000
 Entered Medline: 14 Sep 2000

ABSTRACT:

The monolithic osmotic tablet system, which is composed of a monolithic tablet coated with **cellulose** acetate (CA) membrane drilled with two orifices on both side surfaces, has been described. The influences of tablet formulation variables including molecular weight (MW) and amount of polyethylene oxide (PEO), amount of potassium chloride (KCl), and amount of rice starch as well as nifedipine loading have been investigated. The optimal tablet formulation and the osmotic-suspending co-controlled delivery mechanisms have been proposed. Orifice size and membrane variables including nature and amount of plasticizers as well as thickness on drug release have also been studied. The in vitro release profiles of the optimal system have been evaluated in various release media and different agitation rates, and compared with commercialized conventional **capsule** and push-pull osmotic tablet. It was found that PEO with MW of 300000 g/mol was suitable to be thickening agent, both amount of KCl and amount of PEO had comparable and profoundly positive effects, while nifedipine loading had a strikingly negative influence on drug release. It could be found that the optimal orifice size was in the range of 0.25-1.41 mm. It has also been observed that hydrophilic plasticizer polyethylene glycol (PEG) improved drug release, whereas hydrophobic plasticizer triacetin depressed drug release when they were incorporated in CA membrane. The monolithic osmotic tablet system was found to be able to deliver nifedipine at the rate of approximate zero-order up to 24 h, independent of both environmental media and agitation rate, and substantially comparable with the push-pull osmotic tablet. The monolithic osmotic tablet system was simple to be prepared as exempting from push layer and simplifying in the orifice drilling compared with the push-pull osmotic tablet. The monolithic osmotic tablet system may be used in drug controlled delivery field, especially suitable for **water**-insoluble drugs.

CONTROLLED TERM: *Calcium Channel Blockers: AD, administration & dosage
 Calcium Channel Blockers: AN, analysis
Capsules
Cellulose: AA, analogs & derivatives
 Chromatography, High Pressure Liquid
 Excipients
 Molecular Weight
 Multivariate Analysis
 *Nifedipine: AD, administration & dosage
 Nifedipine: AN, analysis
 Osmosis
 Polyethylene Glycols
Potassium Chloride
 Solubility
 Tablets
 CAS REGISTRY NO.: 21829-25-4 (Nifedipine); 7447-40-7 (Potassium Chloride);
 9004-34-6 (**Cellulose**); 9004-35-7
 (**acetylcellulose**)
 CHEMICAL NAME: 0 (Calcium Channel Blockers); 0 (**Capsules**); 0
 (Excipients); 0 (Polyethylene Glycols); 0 (Tablets)

L117 ANSWER 29 OF 62

MEDLINE on STN

DUPLICATE 5

ACCESSION NUMBER: 1998416563 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 9743921

TITLE: Influence of dextran molecular weight on capture in and release from decylamine **carboxymethylcellulose capsules**.

AUTHOR: Mathew E; Speaker T J

CORPORATE SOURCE: Temple University School of Pharmacy, Philadelphia, PA 19140, USA.

SOURCE: Journal of microencapsulation, (1998 Sep-Oct) Vol. 15, No. 5, pp. 675-80.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199811

ENTRY DATE: Entered STN: 6 Jan 1999

Last Updated on STN: 6 Jan 1999

Entered Medline: 18 Nov 1998

ABSTRACT:

A series of dextran molecular weight markers were **encapsulated** in decylamine **carboxymethylcellulose microcapsules** to serve as probes of **capsule** retentivity. The **capsules** were prepared by allowing microdrops of **aqueous** sodium *****carboxymethylcellulose***** to fall into **aqueous** decylamine acetate **solution**. **Salt** exchange reaction at the droplet pseudointerface resulted in self-assembling films which essentially instantaneously enclosed the droplets. Concentrations of anionic polymer were varied in the range from 1-3%. Chromophore-bearing dextrans were incorporated into these **capsules** by blending the dextrans with the *****carboxymethylcellulose***** prior to the **encapsulation** step. Four dextrans of differing (light scattering) molecular weights were used: 2 x 10(6), 6 x 10(5), 7 x 10(4), and 1.9 x 10(4) amu. The mass balance of dextran retained in the **capsules**, released on washing the **capsules** or which escaped **encapsulation** was determined spectrophotometrically. To measure total dextran in a population of washed **capsules**, the *****capsules***** were lysed in a 0.3 M **solution** of **sodium ***chloride*****. To monitor dextran release, washed **capsules** were suspended in **water** and dextran concentration in the supernatant was measured. **Encapsulation** efficiency exceeded 80% for high molecular weight dextran but was lower with the smaller dextrans.

CONTROLLED TERM: Adsorption

*Amines: CH, chemistry

Capsules***Carboxymethylcellulose: CH, chemistry**

Chemistry, Pharmaceutical: MT, methods

*Dextrans: CH, chemistry

Fluorescein-5-isothiocyanate: AA, analogs & derivatives

Fluorescein-5-isothiocyanate: CH, chemistry

Kinetics

Molecular Weight

*Pharmaceutic Aids: CH, chemistry

CAS REGISTRY NO.: 2016-57-1 (decylamine); 3326-32-7 (Fluorescein-5-isothiocyanate); **9004-32-4 (Carboxymethylcellulose)**; 9004-54-0 (Dextrans)CHEMICAL NAME: 0 (Amines); 0 (**Capsules**); 0 (Pharmaceutic Aids); 0 (fluorescein isothiocyanate dextran)

L117 ANSWER 30 OF 62 MEDLINE on STN DUPLICATE 7
 ACCESSION NUMBER: 97059461 MEDLINE Full-text
 DOCUMENT NUMBER: PubMed ID: 8903782
 TITLE: Pesticide and model drug release from carboxymethylcellulose microspheres.
 AUTHOR: Darvari R; Hasirci V
 CORPORATE SOURCE: Middle East Technical University, Department of Biological Sciences, Biotechnology Research Unit, Ankara, Turkey.
 SOURCE: Journal of microencapsulation, (1996 Jan-Feb) Vol. 13, No. 1, pp. 9-24.
 Journal code: 8500513. ISSN: 0265-2048.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199702
 ENTRY DATE: Entered STN: 27 Feb 1997
 Last Updated on STN: 27 Feb 1997
 Entered Medline: 13 Feb 1997

ABSTRACT:

Water soluble derivatives of **cellulose** are widely used in various biomedical and biotechnological applications. Sodium carboxymethyl ***cellulose*** was insolubilized in the form of microspheres using aluminium chloride as the crosslinking agent. It was observed that, depending on the preparation medium pH, the spherical product could either be a microsphere with an ionotropic interior or a **microcapsule**. Various microspheres with different crosslinker, biopolymer, and drug (2',7'-dichlorofluorescein and aldicarb) contents were prepared and their structures, properties, swelling behaviour and release kinetics investigated. The release kinetics could not be described by typical Fickian or non-Fickian approaches.

CONTROLLED TERM: Aldicarb: ME, metabolism
 Aldicarb: PD, pharmacology
 Aluminum Compounds: PD, pharmacology
 *Carboxymethylcellulose: ME, metabolism
 Chlorides: PD, pharmacology
 Contraceptive Agents: CH, chemistry
 Contraceptive Agents: ME, metabolism
 Cross-Linking Reagents: ME, metabolism
 *Drug Compounding
 Fluoresceins: ME, metabolism
 Hydrogen-Ion Concentration
 Kinetics
 Microscopy
 Microscopy, Electron, Scanning
 *Microspheres
 *Pesticides: ME, metabolism
 Spectrophotometry, Infrared
 CAS REGISTRY NO.: 116-06-3 (Aldicarb); 7446-70-0 (aluminum chloride);
 9004-32-4 (Carboxymethylcellulose)
 CHEMICAL NAME: 0 (Aluminum Compounds); 0 (Chlorides); 0 (Contraceptive Agents); 0 (Cross-Linking Reagents); 0 (Fluoresceins); 0 (Pesticides)

L117 ANSWER 31 OF 62 MEDLINE on STN DUPLICATE 11
 ACCESSION NUMBER: 93187822 MEDLINE Full-text
 DOCUMENT NUMBER: PubMed ID: 8445534
 TITLE: **Microencapsulation** of drugs with **aqueous** colloidal polymer dispersions.
 AUTHOR: Bodmeier R; Wang J
 CORPORATE SOURCE: College of Pharmacy, University of Texas, Austin

78712-1074.
SOURCE: Journal of pharmaceutical sciences, (1993 Feb) Vol. 82, No. 2, pp. 191-4.
Journal code: 2985195R. ISSN: 0022-3549.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199304
ENTRY DATE: Entered STN: 16 Apr 1993
Last Updated on STN: 16 Apr 1993
Entered Medline: 5 Apr 1993

ABSTRACT:

Sustained-release polymer particles containing drugs with various solubility characteristics (ibuprofen, theophylline, guaifenesin, and pseudoephedrine HCl) were prepared with colloidal polymer dispersions in a completely
aqueous environment as an alternative to conventional
microencapsulation techniques, which use organic solvents. Spherical particles were prepared by spraying or dropping dilute sodium alginate
solutions (0.67%, w/w) containing the dissolved or dispersed drug and colloidal polymer particles into **calcium chloride**
solutions. The gelled particles, which formed by ionotropic gelation of the polysaccharide with calcium ions, were dried and cured at 60 degrees C to cause fusion of the colloidal polymer particles into a homogeneous matrix system. Actual drug contents close to 50% and **encapsulation** efficiencies of between 80 and 98% were achieved with all drugs. Guaifenesin and ibuprofen acted as plasticizers for the ethyl **cellulose** pseudolatex, whereas with theophylline and pseudoephedrine HCl, dibutyl sebacate had to be added as a plasticizer to yield a nondisintegrating polymer matrix. The stirring time before separation of the particles from the gelation medium had to be minimized with the **water**-soluble drugs to maximize drug loading; however, it was not critical with the **water**-insoluble drugs. Drug release was a function of the solubility of the drug, drug loading, and the type of polymer dispersion used.

CONTROLLED TERM: ***Capsules**
Colloids
Delayed-Action Preparations
Ephedrine: PK, pharmacokinetics
Excipients
Guaifenesin: PK, pharmacokinetics
Ibuprofen: PK, pharmacokinetics
Microspheres
Solubility
Theophylline: PK, pharmacokinetics
CAS REGISTRY NO.: 15687-27-1 (Ibuprofen); 299-42-3 (Ephedrine); 58-55-9 (Theophylline); 93-14-1 (Guaifenesin)
CHEMICAL NAME: 0 (**Capsules**); 0 (Colloids); 0 (Delayed-Action Preparations); 0 (Excipients)

L117 ANSWER 32 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2005635310 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16315983
TITLE: Clostridium alkalicellum sp. nov., an obligately alkaliphilic cellulolytic bacterium from a soda lake in the Baikal region.
AUTHOR: Zhilina T N; Kevbrin V V; Turova T P; Lysenko A M; Kostrikina N A; Zavarzin G A
SOURCE: Mikrobiologiya, (2005 Sep-Oct) Vol. 74, No. 5, pp. 642-53.
Journal code: 0376652. ISSN: 0026-3656.
PUB. COUNTRY: Russia (Federation)

DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AY959944
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 1 Dec 2005
Last Updated on STN: 23 Dec 2005
Entered Medline: 22 Dec 2005

ABSTRACT:

The first anaerobic alkaliphilic cellulolytic microorganism has been isolated from the Verkhnee Beloe soda lake (Buryatiya, Russia) with pH 10.2 and a ***salt*** content of up to 24 g/l. Five strains were characterized. Strain Z-7026 was chosen as the type strain. The cells of the isolate are gram-positive spore-forming rods. A mucous external **capsule** is produced. The microorganism is obligately alkaliphilic, growing in a pH range of 8.0-10.2, with an optimum at pH 9.0. Sodium ions and, in carbonate-buffered media, **sodium chloride** are obligately required. The microorganism is slightly halophilic; it grows at 0.017-0.4 M Na⁺ with an optimum at 0.15-0.3 M Na⁺. The metabolism is fermentative and strictly anaerobic. **Cellulose**, cellobiose, and xylan can be used as growth substrates. Plant and algal debris can be fermented. Lactate, ethanol, acetate, hydrogen, and traces of formate are produced during **cellulose** or cellobiose fermentation. Yeast **extract** or vitamins are required for anabolic purposes. The microorganism fixes dinitrogen and is nitrogenase-positive. It is tolerant to up to 48 mM Na₂S. Growth is not inhibited by kanamycin or neomycin. Chloramphenicol, streptomycin, penicillin, ampicillin, ampicillin, bacillillin, novobiocin, and bacitracin suppress growth. The DNA G+C content is 29.9 mol %. According to the nucleotide sequence of its 16S rRNA gene, strain Z-7026 is phylogenetically close to the neutrophilic cellulolytic bacteria *Clostridium thermocellum* (95.5%), *C. aldrichii* (94.9%), and *Acetivibrio cellulolyticus* (94.8%). It is proposed as a new species: *Clostridium alkalicellum* sp. nov.

CONTROLLED TERM: Anaerobiosis
Anti-Bacterial Agents: PD, pharmacology
Base Composition
***Cellulose: ME, metabolism**
Chloramphenicol: PD, pharmacology
Clostridium: CL, classification
Clostridium: DE, drug effects
*Clostridium: IP, isolation & purification
*Clostridium: PH, physiology
Culture Media
DNA, Bacterial: GE, genetics
Fermentation
***Fresh Water: MI, microbiology**
Hydrogen-Ion Concentration
Molecular Sequence Data
Nitrogenase: ME, metabolism
Phylogeny
RNA, Bacterial: AN, analysis
RNA, Ribosomal, 16S: AN, analysis
Russia
Species Specificity
Substrate Specificity
***Water Microbiology**
CAS REGISTRY NO.: 56-75-7 (Chloramphenicol); 9004-34-6 (**Cellulose**)
CHEMICAL NAME: 0 (Anti-Bacterial Agents); 0 (Culture Media); 0 (DNA, Bacterial); 0 (RNA, Bacterial); 0 (RNA, Ribosomal, 16S); EC 1.18.6.1 (Nitrogenase)

L117 ANSWER 33 OF 62 MEDLINE on STN
 ACCESSION NUMBER: 2004332268 MEDLINE Full-text
 DOCUMENT NUMBER: PubMed ID: 15236252
 TITLE: Gelation conditions and transport properties of hollow calcium alginate **capsules**.
 AUTHOR: Chai Yi; Mei Le-He; Wu Guo-Liang; Lin Dong-Qiang; Yao Shan-Jing
 CORPORATE SOURCE: Department of Chemical and Biochemical Engineering, Zhejiang University, Hangzhou, China.
 SOURCE: Biotechnology and bioengineering, (2004 Jul 20) Vol. 87, No. 2, pp. 228-33.
 Journal code: 7502021. ISSN: 0006-3592.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200503
 ENTRY DATE: Entered STN: 7 Jul 2004
 Last Updated on STN: 22 Mar 2005
 Entered Medline: 21 Mar 2005

ABSTRACT:

The diameter, membrane thickness, and compression intensity of hollow Ca-alginate **capsules** were measured at different gelation conditions, such as the reactant concentration, dropping velocity, and gelation time. The optimum operation conditions for preparing **capsules** were determined at 100 g/L CaCl₂, 10 g/L sodium alginate (Na-alginate), a dropping velocity of 150 droplets/min, and a gelation time of 10 min. Diffusion of some saccharide and amino acid from bulk **solution** into **capsules** was investigated, and the diffusion coefficients were calculated by the developed mathematical model. All the tested substances can diffuse easily into the **capsules**. The combined diffusion coefficients of the ***capsule*** D(m) are 92-99% as large as their diffusion coefficients in pure **water**, while the diffusion coefficients in the **capsule** membrane D(l) are 60-95% as large as those. By employing polyethylene glycol (PEG) and bovine serum albumin (fraction V) (BSA(V)), the molecular weight cut-off of the **capsule** was determined. For linear macromolecules, hollow Ca-alginate **capsules** have a molecular weight cut-off of 4000. No diffusion of BSA(V) into the **capsules** was observed.

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CONTROLLED TERM: *Alginates: CH, chemistry
 Amino Acids: CH, chemistry
 *Biocompatible Materials: CH, chemistry
 Calcium Chloride: CH, chemistry
 Capsules: CH, chemistry
 Carboxymethylcellulose: CH, chemistry
 Compressive Strength
 Diffusion
 Diffusion Chambers, Culture
 Glucose: CH, chemistry
 *Glucuronic Acid: CH, chemistry
 *Hexuronic Acids: CH, chemistry
 Lactose: CH, chemistry
 Membranes, Artificial
 Permeability
 Polyethylene Glycols: CH, chemistry
 Time Factors

CAS REGISTRY NO.: 10043-52-4 (Calcium Chloride); 50-99-7 (Glucose);
 576-37-4 (Glucuronic Acid); 63-42-3 (Lactose);

9004-32-4 (Carboxymethylcellulose); 9005-32-7
(alginic acid)

CHEMICAL NAME: 0 (Alginates); 0 (Amino Acids); 0 (Biocompatible
Materials); 0 (**Capsules**); 0 (Hexuronic Acids); 0
(Membranes, Artificial); 0 (Polyethylene Glycols)

L117 ANSWER 34 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2003375463 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12909544
TITLE: Influence of alginate characteristics on the properties of
multi-component **microcapsules**.
AUTHOR: Wandrey C; Espinosa D; Rehor A; Hunkeler D
CORPORATE SOURCE: Institute of Chemical and Biological Process Science, Swiss
Federal Institute of Technology, Lausanne, Switzerland..
christine.wandrey@epfl.ch
SOURCE: Journal of microencapsulation, (2003 Sep-Oct) Vol. 20, No.
5, pp. 597-611.
Journal code: 8500513. ISSN: 0265-2048.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200311
ENTRY DATE: Entered STN: 12 Aug 2003
Last Updated on STN: 7 Nov 2003
Entered Medline: 6 Nov 2003

ABSTRACT:

A variety of sodium alginates, differing in molar mass and structural composition, have been evaluated in the preparation of multi-component microbeads and **microcapsules**. Bead formation occurred by gelation with **calcium chloride**. **Capsules** were produced by reacting the pre-formed beads with the oligocation poly(methylene-co-guanidine). Despite the equiponderous (1:1) mixing with a second polyanion, sodium **cellulose** sulphate, the influence of the alginate properties remains evident. Specifically, the effect of the chemical composition was found to be more significant than that of the molar mass for both the mechanical and transport properties. Furthermore, for alginates of 73% alpha-l-guluronic acid content less shrinking was observed compared to the 38% guluronic materials. This results in the case of the same **encapsulator** settings in larger microsphere diameters and thicker membranes accompanied by enhanced mechanical resistance though, also, in a higher permeability for the high-G **capsules**. However, subsequent coating with lower molar mass alginate allows one to adjust the permeability over a broad range, suitable for cell **encapsulation** and immunoprotection, without compromising the durability.

CONTROLLED TERM: *Alginates: CH, chemistry
Biocompatible Materials
Calcium
Capsules
Dextrans
Drug Compounding: MT, methods
Microspheres
Particle Size
Permeability
Photomicrography: MT, methods
Polymers
Sodium
Solutions
Viscosity

CAS REGISTRY NO.: 7440-23-5 (Sodium); 7440-70-2 (Calcium); 9004-54-0 (Dextrans)
CHEMICAL NAME: 0 (Alginates); 0 (Biocompatible Materials); 0 (Capsules); 0 (Polymers); 0 (Solutions)

L117 ANSWER 35 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2003176976 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12695062
TITLE: A novel pulsed-release system based on swelling and osmotic pumping mechanism.
AUTHOR: Zhang Yan; Zhang Zhirong; Wu Fang
CORPORATE SOURCE: West China School of Pharmacy, Sichuan University, No. 17, Section 3, Renmin Nan Road, 610041, Chengdu, China.
SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (2003 Apr 14) Vol. 89, No. 1, pp. 47-55.
Journal code: 8607908. ISSN: 0168-3659.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 17 Apr 2003
Last Updated on STN: 13 Jan 2004
Entered Medline: 12 Jan 2004

ABSTRACT:

A novel pulsed-release system based on bilayer coated tablets containing an osmotically active agent is presented. **Hydroxypropylmethylcellulose** (HPMC) and the mixture of Eudragit RS and RL were applied as the swelling layer and semipermeable outer coat, respectively. To examine the mechanism of drug release from this pulsed-release system, drug release behaviors were investigated under conditions of various osmotic pressures. Both lag time and release rate were dependent on the coating level and the osmotic pressure of the dissolution medium. The swelling of tablets and the dynamics of ***water*** uptake during the dissolution were investigated to further elucidate the mechanism of drug release. The osmotic active agent induces a continuous **water** influx resulting in a rapid expansion of the membrane. The subsequent formation of fractures leads to a fast drug release after an initial lag time. All the results obtained in the present study indicated that both diffusion and osmotic pumping effect were involved in drug release from the device, but the latter was more dominant.

CONTROLLED TERM: **Capsules**
*Delayed-Action Preparations: CH, chemistry
*Delayed-Action Preparations: PK, pharmacokinetics
Diffusion
*Drug Delivery Systems: MT, methods
Hydrogen-Ion Concentration
***Methylcellulose: AA, analogs & derivatives**
Methylcellulose: CH, chemistry
Methylcellulose: PK, pharmacokinetics
Osmotic Pressure
Polymers: CH, chemistry
Polymethacrylic Acids: CH, chemistry
Polymethacrylic Acids: PK, pharmacokinetics
Pulse Therapy, Drug: MT, methods
Sodium Chloride: CH, chemistry
Sodium Chloride: PK, pharmacokinetics
Solubility

Tablets

*Technology, Pharmaceutical: MT, methods

Terbutaline: CH, chemistry

*Terbutaline: PK, pharmacokinetics

Time Factors

CAS REGISTRY NO.: 23031-25-6 (Terbutaline); 25086-15-1 (methylmethacrylate-methacrylic acid copolymer); **7647-14-5 (Sodium Chloride)**; **9004-67-5 (Methylcellulose)**

CHEMICAL NAME: 0 (**Capsules**); 0 (Delayed-Action Preparations); 0 (Polymers); 0 (Polymethacrylic Acids); 0 (Tablets)

L117 ANSWER 36 OF 62 MEDLINE on STN

ACCESSION NUMBER: 2002148526 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11853927

TITLE: Modulation of active pharmaceutical material release from a novel 'tablet in **capsule** system' containing an effervescent blend.

AUTHOR: Gohel Mukesh C; Sumitra G Manhapra

CORPORATE SOURCE: Department of Pharmaceutics and Pharmaceutical Technology, L.M. College of Pharmacy, Ahmedabad 380 009, Gujarat, India.. mukeshgohel@hotmail.com

SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (2002 Feb 19) Vol. 79, No. 1-3, pp. 157-64.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200205

ENTRY DATE: Entered STN: 8 Mar 2002

Last Updated on STN: 17 May 2002

Entered Medline: 16 May 2002

ABSTRACT:

The objective of the present study was to obtain programmed drug delivery from hard gelatin **capsules** containing a hydrophilic plug (HPMC or guar gum). The significance of factors such as type of plug (powder or tablet), plug thickness and the formulation of fill material on the release pattern of diltiazem HCl, a model drug, was investigated. The body portion of the hard gelatin **capsules** was cross-linked by the combined effect of formaldehyde and heat treatment. A linear relationship was observed between weight of HPMC K15M and log % drug released at 4 h from the **capsules** containing the plug in powder form. In order to accelerate the drug release after a lag time of 4 h, addition of an effervescent blend, NaHCO₃ and citric acid, in the **capsules** was found to be essential. The plugs of HPMC in tablet form, with or without a **water** soluble adjuvant (NaCl or lactose) were used for obtaining immediate drug release after the lag time.

Sodium **chloride** did not cause significant influence on drug release whereas lactose favourably affected the drug release. The ***capsules*** containing HPMC K15M tablet plug (200 mg) and 35 mg effervescent blend in body portion of the **capsule** met the selection criteria of less than 10% drug release in 4 h and immediate drug release thereafter. It is further shown that the drug release was also dependant on the type of swellable hydrophilic agent (HPMC or guar gum) and molecular weight of HPMC (K15M or 20 cPs). The results reveal that programmed drug delivery can be obtained from hard gelatin **capsules** by systemic formulation approach.

CONTROLLED TERM: **Capsules: CH, chemistry**

***Capsules: PK, pharmacokinetics**

Chemistry, Pharmaceutical

Delayed-Action Preparations: CH, chemistry
 Delayed-Action Preparations: PK, pharmacokinetics
 Diltiazem: CH, chemistry
 Diltiazem: PK, pharmacokinetics
 Drug Delivery Systems: MT, methods
 Galactans: CH, chemistry
 Galactans: PK, pharmacokinetics
 *Lactose: AA, analogs & derivatives
 Lactose: CH, chemistry
 Lactose: PK, pharmacokinetics
 Mannans: CH, chemistry
 Mannans: PK, pharmacokinetics
 *Methylcellulose: AA, analogs & derivatives
 Methylcellulose: CH, chemistry
 Methylcellulose: PK, pharmacokinetics

Oxazines

Plant Gums

Powders: CH, chemistry

Powders: PK, pharmacokinetics

Tablets: CH, chemistry

*Tablets: PK, pharmacokinetics

CAS REGISTRY NO.: 42399-41-7 (Diltiazem); 63-42-3 (Lactose); 9000-30-0 (guar gum); 9004-67-5 (Methylcellulose); 99705-65-4 (MK 458)

CHEMICAL NAME: 0 (Capsules); 0 (Delayed-Action Preparations); 0 (Galactans); 0 (Mannans); 0 (Oxazines); 0 (Plant Gums); 0 (Powders); 0 (Tablets)

L117 ANSWER 37 OF 62

MEDLINE on STN

ACCESSION NUMBER: 2001663774 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11709249

TITLE: Phacoemulsification of brunescent and black cataracts.

AUTHOR: Singh R; Vasavada A R; Janaswamy G

CORPORATE SOURCE: Iladevi Cataract & IOL Research Centre, Ahmedabad, India.

SOURCE: Journal of cataract and refractive surgery, (2001 Nov) Vol. 27, No. 11, pp. 1762-9.

Journal code: 8604171. ISSN: 0886-3350.

PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)

(EVALUATION STUDIES)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200112

ENTRY DATE: Entered STN: 19 Nov 2001

Last Updated on STN: 23 Jan 2002

Entered Medline: 11 Dec 2001

ABSTRACT:

PURPOSE: To evaluate the efficacy and safety of a step-by-step, chop in situ, lateral separation technique to remove brunescent and black cataracts.

SETTING: Iladevi Cataract and IOL Research Center, Ahmedabad, India. METHODS:

In this prospective study conducted between May 1997 and June 1998, 167

consecutive eyes were divided into 2 groups: Group 1, brunescent cataract (n = 123), and Group 2, black cataract (n = 44). Preoperative assessment included axial length (AL), slitlamp examination, corneal pachymetry, tonometry, and specular microscopy. During phacoemulsification performed by a single surgeon, a step-by-step, chop in situ, lateral separation technique was used to divide the nucleus. Intraoperatively, hydroxypropyl methylcellulose 2% was used and irrigation was by balanced salt solution (BSS).

Postoperatively, all eyes were assessed at 1, 7, 30, 90, 180, and 360 days.

The results were evaluated using regression analysis, the chi-square test, and the Student t test. RESULTS: The mean follow-up was 14.4 months (range 6 to 35 months) in Group 1 and 13.0 months (range 6 to 32 months) in Group 2. The AL was significantly greater in Group 2 ($P = .02$). **Corticapsular** adhesions were present in 17.82% in Group 1 and 31.82% in Group 2. The mean cumulative dissipated energy was 2.03 and 3.12, respectively ($P = .0005$). Wound site thermal injury occurred in 16 eyes (13.01%) in Group 1 and 4 eyes (9.09%) in Group 2. No serious intraoperative or postoperative complications were noted. One day postoperatively, the mean rise in intraocular pressure was 1.76 mm Hg in Group 1 and 4.15 mm Hg in Group 2 ($P = .012$), and transient corneal edema was present in 24.40% and 34.10%, respectively. At 1 month, the endothelial cell loss was 10.06% in Group 1 and 9.22% in Group 2. CONCLUSION: The step-by-step, chop in situ, lateral separation technique was effective and did not produce serious complications such as zonulysis or posterior ***capsule*** rupture. However, the incidence of wound site thermal injury and endothelial cell loss was greater than after emulsification of standard cataracts.

CONTROLLED TERM: Check Tags: Female; Male
 Acetates: TU, therapeutic use
 Adult
 Aged
 Aged, 80 and over
 Cataract: CO, complications
 *Cataract: TH, therapy
 Drug Combinations
 Follow-Up Studies
 Humans
 Intraocular Pressure
 *Methylcellulose: AA, analogs & derivatives
 Methylcellulose: TU, therapeutic use
 Middle Aged
 Minerals: TU, therapeutic use
 *Phacoemulsification: MT, methods
 Prospective Studies
 Safety
 Sodium Chloride: TU, therapeutic use
 Tonometry, Ocular

CAS REGISTRY NO.: 7647-14-5 (Sodium Chloride); 8063-82-9 (hypromellose); 9004-67-5 (Methylcellulose)

CHEMICAL NAME: 0 (Acetates); 0 (BSS solution); 0 (Drug Combinations); 0 (Minerals)

L117 ANSWER 38 OF 62 MEDLINE on STN

ACCESSION NUMBER: 2000492368 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10872778

TITLE: Controlled release of swine semen **encapsulated** in calcium alginate beads.

AUTHOR: Torre M L; Maggi L; Vigo D; Galli A; Bornaghi V; Maffeo G; Conte U

CORPORATE SOURCE: Dipartimento Chimica Farmaceutica, Pavia, Italy.

SOURCE: Biomaterials, (2000 Jul) Vol. 21, No. 14, pp. 1493-8. Journal code: 8100316. ISSN: 0142-9612.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: (COMPARATIVE STUDY)
 Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200010

ENTRY DATE: Entered STN: 27 Oct 2000

Last Updated on STN: 27 Oct 2000
Entered Medline: 19 Oct 2000

ABSTRACT:

A quick and successful **encapsulation** method of swine spermatozoa is described: **hydroxypropylmethylcellulose** and **calcium** *****chloride***** were added to the sampled ejaculate swine sperm (sperm-rich fraction: creamy white) and then this suspension was dropped into an *****aqueous*** solution** of sodium alginate. In order to obtain different **capsule** thicknesses, different **calcium** *****chloride***** concentrations were used. The influence of different formulations on in vitro spermatozoa release behavior and on the mechanical properties has been studied. In vitro sperm kinetics (motility and average velocity) have been determined. The results obtained from motility and average velocity tests of treated seminal material are promising, especially if the difficulty of preservation of swine spermatozoa compared to bovine sperm is considered. The different membranes obtained from the different calcium concentrations have had an influence on mechanical properties and on the release profile of spermatozoa from the **capsules**, and therefore, it is possible to modulate the release rate of the cells.

CONTROLLED TERM: Check Tags: Male
*Alginates
Animals
Biocompatible Materials: CH, chemistry
*Capsules
Capsules: CH, chemistry
Cattle
Delayed-Action Preparations
Glucuronic Acid
Hexuronic Acids
Microscopy, Electron, Scanning
*Semen: PH, physiology
Sperm Motility
*Spermatozoa: PH, physiology
Swine

CAS REGISTRY NO.: 576-37-4 (Glucuronic Acid); 9005-32-7 (alginic acid)

CHEMICAL NAME: 0 (Alginates); 0 (Biocompatible Materials); 0 (**Capsules**); 0 (Delayed-Action Preparations); 0 (Hexuronic Acids)

L117 ANSWER 39 OF 62 MEDLINE on STN

ACCESSION NUMBER: 1998090794 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 9429096

TITLE: New **capsule** with tailored properties for the **encapsulation** of living cells.

AUTHOR: Lacik I; Brissova M; Anilkumar A V; Powers A C; Wang T

CORPORATE SOURCE: Center for Microgravity Research and Applications, Vanderbilt University, Nashville, Tennessee 37235, USA.

SOURCE: Journal of biomedical materials research, (1998 Jan) Vol. 39, No. 1, pp. 52-60.
Journal code: 0112726. ISSN: 0021-9304.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199802

ENTRY DATE: Entered STN: 26 Feb 1998

Last Updated on STN: 26 Feb 1998

Entered Medline: 17 Feb 1998

ABSTRACT:

A new **capsule** for the **encapsulation** and transplantation of pancreatic islets has been developed. Five active ingredients are involved in the **capsule** formation process: high viscosity sodium alginate (SA-HV), **cellulose** sulfate (CS), poly(methylene-co-guanidine) hydrochloride (PMCG), **calcium chloride**, and **sodium** ***chloride.*** Complexation reaction exhibits several unique features: (1) ***solution*** of SA-HV with CS represents a physical mixture of two entangled polyanions that provide both pH-sensitive (carboxylic) and permanently charged (sulfate) groups; (2) presence of CaCl₂ in the cation ***solution*** ensures formation of the gelled bead after the drop of polyanion **solution** is immersed in the cation **solution**; (3) character of the polycation (PMCG), i.e., low molecular weight and unusually high charge density, combines both high mobility and reactivity; (4) presence of PMCG in cation **solution**, together with CaCl₂, gives rise to the competitive binding of these two cations based on their diffusion and affinity towards the anion groups; and (5) NaCl provides the anti-gelling sodium ions that significantly affect the reaction of CaCl₂ with the polyanion matrix, thus altering the final properties of the **capsule** surface, shape, and permeability. The **capsule** size, mechanical strength, membrane thickness, and permeability can be precisely adjusted and quantified. Detailed information on the permeability aspects is given in another paper by Brissova et al. [J. Biomed. Mater. Sci., 39, 61 (1998)]. The new features concerning ***capsule*** processing and testing are presented. We believe that the ***capsule*** characteristics can be optimized in the next step to meet the biological criteria. The initial transplantation results suggest that this ***capsule*** is biocompatible and noncytotoxic and is a promising candidate for the immunoisolation of cells such as pancreatic islets.

CONTROLLED TERM: Animals
 *Biocompatible Materials
 Capsules
 *Islets of Langerhans Transplantation
 *Polymers
 Rats
 Rats, Sprague-Dawley
 CHEMICAL NAME: 0 (Biocompatible Materials); 0 (**Capsules**); 0
 (Polymers)

L117 ANSWER 40 OF 62 MEDLINE on STN
 ACCESSION NUMBER: 84035671 MEDLINE Full-text
 DOCUMENT NUMBER: PubMed ID: 6631689
 TITLE: Effect of dosage form and formulation factors on the
 adherence of drugs to the esophagus.
 AUTHOR: Marvola M; Rajaniemi M; Marttila E; Vahervuo K; Sothmann A
 SOURCE: Journal of pharmaceutical sciences, (1983 Sep) Vol. 72, No.
 9, pp. 1034-6.
 Journal code: 2985195R. ISSN: 0022-3549.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: (IN VITRO)
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198312
 ENTRY DATE: Entered STN: 19 Mar 1990
 Last Updated on STN: 19 Mar 1990
 Entered Medline: 17 Dec 1983

ABSTRACT:

In recent years, many case reports concerning esophageal injuries caused by drugs have been published. The primary cause has apparently been the adherence of the drug product to the esophagus. In the present study, the adherent tendency of a number of types of tablets and **capsules** were tested in

vitro using a recently developed isolated porcine esophagus preparation. The results showed that the tendency of products to adhere to the esophageal mucosa can be modified to a great extent by shape and formulation. Products with low adherence can be obtained by film coating with **aqueous** dispersions or by sugarcoating. In contrast, gelatin **capsules** and some ***cellulose*** films appear to have a high tendency to adhere to the esophagus.

CONTROLLED TERM: Check Tags: Female; Male
Adhesiveness
Animals
*Capsules
Capsules: AE, adverse effects
Chemistry, Pharmaceutical
*Esophagus
Esophagus: IN, injuries
Potassium Chloride: AD, administration & dosage
Swine
*Tablets
Tablets: AE, adverse effects
CAS REGISTRY NO.: 7447-40-7 (Potassium Chloride)
CHEMICAL NAME: 0 (Capsules); 0 (Tablets)

L117 ANSWER 41 OF 62 MEDLINE on STN
ACCESSION NUMBER: 79199605 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 450035
TITLE: Biochemical and serological characteristics of soluble yeast phase antigens of Histoplasma **capsulatum**.
AUTHOR: Malcolm G B; Pine L; Cherniak R; Moss C W
SOURCE: Mycopathologia, (1979 Mar 30) Vol. 67, No. 1, pp. 3-16.
Journal code: 7505689. ISSN: 0301-486X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197908
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990
Entered Medline: 29 Aug 1979

ABSTRACT:

Soluble antigens of whole yeast-phase cells were **extracted** with a 0.1 M phosphate buffer containing 0.1 M **sodium chloride** and 0.02% iodacetate. After being separated by differential filtration into fractions less than or greater than 50,000 daltons these antigens were purified by molecular sieve and chromatographic separations on ionic exchange resins. Two high molecular weight fractions obtained from diethylaminoethyl-***cellulose*** (DEAE) at pH 8.0 and 7.0 with tris (hydroxymethyl) aminomethane (Tris) buffer were M antigens; those obtained at pH 4.0 and 4.0 with **salt** were H antigens. The four fractions had protein to carbohydrate ratios of 7.3, 14.0, 8.4, and 6.5 respectively, and all had essentially the same amino acid composition with no methionine and tyrosine and little histidine, arginine, phenylalanine and lysine. They had high concentrations of glucose, less mannose and traces of galactose. The low molecular weight fractions had the new complex "Y antigen", M antigen with protein to carbohydrate ratios of 1.4, 1.4 and 0.3 respectively. The amino acid and sugar composition of Y antigen strongly resembled the composition of the low molecular weight H and M antigens. Unlike the high molecular weight antigens, these low molecular weight antigens had methionine in relatively high concentrations; they had the same sugars as their respective high molecular weight counterparts. The yeast phase antigens differed from their respective mycelial counterparts in the following ways: glucose was the major sugar in the

yeast phase with less amounts of mannose and traces of galactose, whereas in the mycelial antigens, mannose was the major sugar, with lesser amounts of galactose, and hexosamine. The H and M antigens of the yeast phase had high concentrations of glycine and alanine, whereas in the mycelial phase, these antigens had high concentrations of threonine and proline; the H and M antigens of the yeast phase had 5 to 16 times the protein to carbohydrate ratio observed for the same antigens of histoplasmin.

CONTROLLED TERM: Amino Acids: AN, analysis
*Antigens, Fungal
Antigens, Fungal: AN, analysis
Antigens, Fungal: IM, immunology
Carbohydrates: AN, analysis
Fungal Proteins: AN, analysis
Histoplasma: CY, cytology
*Histoplasma: IM, immunology
Molecular Weight
Precipitin Tests

CHEMICAL NAME: 0 (Amino Acids); 0 (Antigens, Fungal); 0 (Carbohydrates); 0 (Fungal Proteins)

L117 ANSWER 42 OF 62 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN DUPLICATE 1

ACCESSION NUMBER: 2005249315 EMBASE Full-text

TITLE: Controlled release of dexamethasone from **microcapsules** produced by polyelectrolyte layer-by-layer nanoassembly.

AUTHOR: Pargaonkar N.; Lvov Y.M.; Li N.; Steenekamp J.H.; De Villiers M.M.

CORPORATE SOURCE: M.M. De Villiers, Department of Basic Pharmaceutical Sciences, School of Pharmacy, University of Louisiana at Monroe, Monroe, LA, United States. devilliers@ulm.edu
SOURCE: Pharmaceutical Research, (2005) Vol. 22, No. 5, pp. 826-835. .

Refs: 29

ISSN: 0724-8741 CODEN: PHREEB

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 23 Jun 2005

Last Updated on STN: 23 Jun 2005

ABSTRACT: Purpose. In an effort to expand the application of core-shell structures fabricated by electrostatic layer-by-layer (LbL) self-assembling for drug delivery, this study reports the controlled release of dexamethasone from microcrystals **encapsulated** with a polyelectrolyte shell. Methods.

The LbL self-assembly process was used to produce dexamethasone particles *****encapsulated***** with up to five double layers formed by alternating the adsorption of positively charged poly(dimethyldiallyl ammonium **chloride**), negatively charged sodium poly(styrenesulfonate) and depending on the pH positively or negatively charged gelatin A or B onto the surface of the negatively charged dexamethasone particles. The nano-thin shells were characterized by quartz crystal microbalance measurements, microelectrophoresis, microcalorimetry, confocal microscopy, and scanning electron microscopy. In vitro release of dexamethasone from the *****microcapsules***** suspended in water or **carboxymethylcellulose** gels were measured using vertical Franz-type diffusion cells. Results. Sonication of a suspension of negatively charged dexamethasone microcrystals in a solution of PDDA not only reduced aggregation but also reduced the size of

the sub-micrometer particles. Assembly of multiple polyelectrolyte layers around these monodispersed cores produced a polyelectrolyte multilayer shell around the drug microcrystals that allowed for controlled release depending on the composition and the number of layers. Conclusions. Direct surface modification of dexamethasone microcrystals via the LbL process produced monodispersed suspensions with diffusion-controlled sustained drug release via the polyelectrolyte multilayer shell. .COPYRG. 2005 Springer Science+Business Media, Inc.

CONTROLLED TERM: Medical Descriptors:
*controlled drug release
***microcapsule**
drug delivery system
crystal
***encapsulation**
electricity
adsorption
pH measurement
nanoparticle
microelectrophoresis
microcalorimetry
confocal microscopy
scanning electron microscopy
suspension
diffusion
gel
ultrasound
dispersion
article
priority journal
Drug Descriptors:
*polyelectrolyte: PR, pharmaceuticals
*dexamethasone: PR, pharmaceuticals
***poly(diallyldimethylammonium chloride): PR,**
pharmaceuticals
polystyrenesulfonate sodium: PR, pharmaceuticals
gelatin a: PR, pharmaceuticals
gelatin b: PR, pharmaceuticals
gelatin: PR, pharmaceuticals
silicon dioxide
***water**
***carboxymethylcellulose**
unclassified drug
CAS REGISTRY NO.: (dexamethasone) 50-02-2; (poly(diallyldimethylammonium
chloride)) 26062-79-3; (polystyrenesulfonate
sodium) 37349-16-9, 39291-70-8, 62744-35-8, 9080-79-9;
(gelatin) 9000-70-8; (silicon dioxide) 10279-57-9,
14464-46-1, 14808-60-7, 15468-32-3, 60676-86-0, 7631-86-9;
(water) 7732-18-5; (**carboxymethylcellulose**)
8050-38-2, 9000-11-7, 9004-32-4, 9050-04-8
COMPANY NAME: Spectrum (United States); Sigma Aldrich (United States)

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ACCESSION NUMBER: 1998395443 EMBASE Full-text

TITLE: Preparation and characterization of enteric microspheres containing bovine insulin by a w/o/w emulsion solvent evaporation method.

AUTHOR: Nagareya N.Y.; Uchida T.; Matsuyama K.

CORPORATE SOURCE: T. Uchida, Faculty of Pharmaceutical Sciences, Mukogawa

Women's University, 11-68, Koshien 9-Bancho, Nishinomiya
City 663-8179, Japan
SOURCE: Chemical and Pharmaceutical Bulletin, (1998) Vol. 46, No.
10, pp. 1613-1617. .
Refs: 15
ISSN: 0009-2363 CODEN: CPBTAL

COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
030 Pharmacology
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jan 1999
Last Updated on STN: 10 Jan 1999

ABSTRACT: The objective of this study was to produce enteric microspheres containing bovine insulin as a model drug using a **water**-in-oil-in-*****water***** (w/o/w) emulsion solvent evaporation method, and the preparative conditions were optimized. When **hydroxypropylmethylcellulose** acetate succinate (AS-HG type; high content of succinyl group) was employed as an enteric wall material, optimized microspheres showed almost 90% of the loading efficiency of insulin and 30.8 μ m of mean volume diameter. The mixture of methylene **chloride** and acetone (4:1) as an oleaginous phase, 400 μ l of bovine insulin solution (dissolved in 30% of acetic acid) as an internal **aqueous** phase, and 1.0% of polyvinylalcohol dissolved in pH 3.0 citrate buffer as an external **aqueous** phase, were employed in the experiment. In relation to other enteric **cellulose** derivatives (AS-MG type, AS-LG type; medium and low content of succinyl group, respectively), the **microencapsulation** using a simultaneous preparation method also resulted in quite high loading efficiencies, whereas the choice of poly(methyl methacrylate) as a wall material caused aggregation or flocculation in the preparative process of every batch. The AS-HG microspheres showed very fast release profile in pH 6.8 buffer, but no released fraction was observed in pH 1.2 buffer. This phenomenon suggested enteric characteristics of prepared microspheres. Finally AS-HG microspheres containing 4% lauric acid and 9% insulin were prepared, suspended in 0.1% of carboxymethyl **cellulose** solution, and administered to the rat rectum (corresponding to 50 I.U./kg insulin). The plasma glucose level reached minimum level at 0.5 h after administration then gradually rose to normal.

CONTROLLED TERM: Medical Descriptors:
*drug formulation
emulsion
microencapsulation
insulin release
glucose blood level
nonhuman
male
rat
animal experiment
rectal drug administration
article
Drug Descriptors:
*bovine insulin: PR, pharmaceuticals
*microsphere: PR, pharmaceuticals
***hydroxypropylmethylcellulose acetate succinate: PR, pharmaceuticals**
lauric acid: PR, pharmaceuticals
dichloromethane

acetone
polyvinyl alcohol
glucose: EC, endogenous compound
carboxymethylcellulose

CAS REGISTRY NO.: (bovine insulin) 11070-73-8; (**hydroxypropylmethylcellulose** acetate succinate) 71138-97-1; (lauric acid) 115-05-9, 143-07-7; (dichloromethane) 75-09-2; (acetone) 67-64-1; (polyvinyl alcohol) 37380-95-3, 9002-89-5; (glucose) 50-99-7, 84778-64-3; (**carboxymethylcellulose**) 8050-38-2, 9000-11-7, 9004-32-4, 9050-04-8
COMPANY NAME: Shinetsu (Japan); Aldrich (United States); Sigma (United States); Nakarai

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ACCESSION NUMBER: 96325925 EMBASE Full-text
DOCUMENT NUMBER: 1996325925
TITLE: Stable formulations of recombinant human growth hormone and interferon- γ for **microencapsulation** in biodegradable microspheres.
AUTHOR: Cleland J.L.; Jones A.J.S.
CORPORATE SOURCE: Dept. Pharmaceutical Res./Develop., Genentech Inc, South San Francisco, CA 94080, United States
SOURCE: Pharmaceutical Research, (1996) Vol. 13, No. 10, pp. 1464-1475. .
ISSN: 0724-8741 CODEN: PHREEB
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19 Nov 1996
Last Updated on STN: 19 Nov 1996

ABSTRACT: Purpose. The successful development of controlled release formulations for proteins requires that the protein not be denatured during the manufacturing process. The major objective was to develop formulations that stabilize two recombinant human proteins, human growth hormone (rhGH) and interferon- γ (rhIFN- γ), at high protein concentrations (>100 mg/mL) in organic solvents commonly used for **microencapsulation**, methylene ***chloride*** and ethyl acetate. Methods. Several excipients were screened to obtain the maximum solubility of each protein. These formulations (***aqueous***, lyophilized, milled, spray dried, or isoelectric precipitate) were then rapidly screened by emulsification in the organic solvent followed by recovery into excess buffer. Additional screening was performed with solid protein that was suspended in the organic solvent and then recovered with excess buffer. The recovery of native protein was determined by native size exclusion chromatography (SEC-HPLC) and circular dichroism (CD). The selected formulations were **encapsulated** in polylactic-coglycolic acid (PLGA) microspheres by either **water-in-oil-in-water** (W/O/W) or solid-in-oil-in-**water** (S/O/W) methods. The initial protein released from the microspheres incubated at physiological conditions was analyzed by SEC-HPLC, CD, and biological assays. Results, The stability of a given formulation in the rapid screening method correlated well with stability during ***encapsulation*** in PLGA microspheres. Formulations of rhGH containing Tween 20 or 80 resulted in lower recovery of native protein, while trehalose and mannitol formulations (phosphate buffer, pH 8.0) yielded complete recovery of native rhGH. Other additives such as carboxymethyl **cellulose**, gelatin, and dextran 70 were not effective stabilizers, and polyethylene glycol provided some stabilization of rhGH. Trehalose/rhGH (1:4 mass ratio) and

mannitol/rhGH (1:2 mass ratio) formulations (potassium phosphate buffer, pH 8.0) were lyophilized, reconstituted to 200 and 400 mg/mL rhGH, respectively, and then **encapsulated** in PLGA microspheres. The protein was released from these microspheres in its native state. Lyophilized formulations of rhGH yielded analogous results indicating the ability of trehalose and mannitol to stabilize the protein. Small solid particles of rhGH generated by spray drying (both air and freeze-drying) formulations containing Tween 20 or PEG were stable in ethyl acetate, but not methylene **chloride**. Similar results were also obtained with rhIFN- γ (137 mg/mL in succinate buffer, pH 5.0), where both mannitol and trehalose were observed to stabilize the protein during exposure to the organic solvents resulting in the release of native rhIFN- γ from PLGA microspheres. Conclusions. The rapid screening method allowed the development of stable concentrated protein solutions or solid protein formulations that could be successfully **encapsulated** in PLGA microspheres. The excipients observed to stabilize these proteins function by preferential hydration of the protein, and in the dry state (e.g., trehalose) may stabilize the protein via **water** substitution yielding a protective coating around the protein surface. Studies of other proteins should provide further insight into this mechanism of protein stabilization during **encapsulation**.

CONTROLLED TERM: Medical Descriptors:
 *drug formulation
 *drug stability
 ***microencapsulation**
 article
 circular dichroism
 conformation
 freeze drying
 gel permeation chromatography
 priority journal
 sustained release preparation
 Drug Descriptors:
 microsphere
 *gamma interferon: PR, pharmaceuticals
 *human growth hormone: PR, pharmaceuticals
 organic solvent
 CAS REGISTRY NO.: (gamma interferon) 82115-62-6; (human growth hormone) 12629-01-5
 COMPANY NAME: Genentech

L117 ANSWER 45 OF 62 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN DUPLICATE 8
 ACCESSION NUMBER: 95346215 EMBASE Full-text
 DOCUMENT NUMBER: 1995346215
 TITLE: Production of **water**-containing polymer **microcapsules** by the complex emulsion/solvent evaporation technique. Effect of process variables on the **microcapsule** size distribution.
 AUTHOR: Kentepozidou A.; Kiparissides C.
 CORPORATE SOURCE: Department of Chemical Engineering, Chemical Proc Engineering Res Inst, Aristotle University of Thessaloniki, PO Box 472, Thessaloniki, Greece
 SOURCE: Journal of Microencapsulation, (1995) Vol. 12, No. 6, pp. 627-638. .
 ISSN: 0265-2048 CODEN: JOMIEF
 COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation

030 Pharmacology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 1995
Last Updated on STN: 5 Dec 1995

ABSTRACT: The complex emulsion/solvent evaporation technique was employed for the production of **water**-containing polymer **microcapsules**. The inner phase of the **microcapsules** consisted of an **aqueous** solution of gelatin. Several polymers (e.g. poly(styrene), poly(methyl methacrylate), ethyl **cellulose**, poly(vinyl **chloride**)) were utilized as wall-forming materials and the effect of the polymer type on the size and the surface characteristics of the **microcapsules** was experimentally investigated. The size of the **microcapsules** was strongly affected by the conditions applied during the formation of both simple (w/o) and complex (w/o)/w emulsions. Poly(styrene) **microcapsules** with a mean Sauter diameter in the range of 4-12µm were prepared by varying the rate of agitation (1500-4000 rpm) and the concentration of stabilizer (potassium oleate, 0.1-1.5%w/v) used in the formation of the (w/o)/w emulsion. High stabilizer concentrations and agitation rates resulted in a significant reduction of the mean size of the complex droplets and in a simultaneous increase of the breadth of the **capsule** size distribution.

CONTROLLED TERM: Medical Descriptors:
***microencapsulation**
article
controlled study
molecular weight
particle size
emulsion
Drug Descriptors:
***microcapsule**
ethyl cellulose
gelatin
polymer
polystyrene
polyvinylchloride

CAS REGISTRY NO.: (ethyl **cellulose**) 9004-57-3; (gelatin) 9000-70-8;
(polystyrene) 9003-53-6; (polyvinylchloride) 9002-86-2

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ACCESSION NUMBER: 95065295 EMBASE Full-text

DOCUMENT NUMBER: 1995065295

TITLE: The analysis of drug release from diluted **water** /oil/**water** emulsions by a model of the rupture of oil membrane.

AUTHOR: Hino T.; Takeuchi H.; Niwa T.; Kitagawa M.; Kawashima Y.

CORPORATE SOURCE: Gifu Pharmaceutical University, 5-6-1 Mitahora-Higashi, Gifu 502, Japan

SOURCE: Journal of Pharmacy and Pharmacology, (1995) Vol. 47, No. 1, pp. 1-7. .

ISSN: 0022-3573 CODEN: JPPMAB

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 14 Mar 1995

Last Updated on STN: 14 Mar 1995

ABSTRACT: The release behaviour of theophylline **encapsulated** in the inner **aqueous** phase of a **water/oil/water** emulsion was investigated by two methods. A **cellulose** tube containing a sample of the emulsion was placed in a rotary basket and was stirred in a dissolution medium (Method A), or the w/o/w emulsion was dispersed in a dissolution medium and the system was stirred by a paddle, allowing the drug to permeate into a **cellulose** tube placed in the dispersing medium (Method B). In Method A, the drug release rate from the emulsion decreased with increase in the concentration of **sodium chloride** co-formulated with the drug in the inner **aqueous** phase. The drug release rate in the dissolution test medium Number 1 or Number 2 of the JP XII was greater than that in purified **water** and was increased with the ionic strength of the dissolution medium. The drug was released more rapidly in Method B than in Method A, because the emulsion was destroyed more easily using the former method. As this destruction of emulsion structure occurred immediately after dilution with dissolution medium, the influence of the dissolution medium on the release profile could not be detected using Method B. The experimental data of drug release were satisfactorily explained by the destruction model of the oil membranes of the **water/oil/water** emulsions.

CONTROLLED TERM: Medical Descriptors:
*drug release
article
controlled study
dilution
dissolution
drug formulation
encapsulation
experimental model
ionic strength
methodology
emulsion
Drug Descriptors:
*theophylline: DV, drug development
*theophylline: PR, pharmaceuticals
***water oil cream**
cellulose
sodium chloride
water

CAS REGISTRY NO.: (theophylline) 58-55-9, 5967-84-0, 8055-07-0, 8061-56-1,
99007-19-9; (**cellulose**) 61991-22-8, 68073-05-2,
9004-34-6; (**sodium chloride**) 7647-14-5;
(**water**) 7732-18-5

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ACCESSION NUMBER: 94263224 EMBASE Full-text
DOCUMENT NUMBER: 1994263224
TITLE: Preparation and characterisation of poly(lactic acid) hemoglobin microspheres.
AUTHOR: Cedrati N.; Maincent P.; Thomas F.; Labrude P.; Vigneron C.
CORPORATE SOURCE: Fac Sciences Pharmaceutiques Biol, BP 403, 54001 Nancy Cedex, France
SOURCE: Artificial Cells, Blood Substitutes, and Immobilization Biotechnology, (1994) Vol. 22, No. 3, pp. 867-873. .
ISSN: 1073-1199 CODEN: ABSBE4
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 025 Hematology

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 7 Sep 1994
Last Updated on STN: 7 Sep 1994

ABSTRACT: For many years, a lot of research effort has been carried out with a view to preparing blood substitutes. Our group has developed a process of ***encapsulation*** of hemoglobin in polylactid microspheres. An ***aqueous*** solution of hemoglobin was emulsified into a solution of polymer in methylene **chloride** to form a W/O emulsion. This primary emulsion was then added to a external **aqueous** phase under stirring until the evaporation of methylene **chloride**. The microspheres were separated by filtration and washed with distilled **water**.

Microspheres were spherical and their sizes vary between 10 and 500 μm . More than 80% of the hemoglobin was **encapsulated**. From the absorption spectra of hemoglobin from microspheres, we did not notice any alteration of the oxygen carrier. The dissociation curve of the hemoglobin demonstrated the permeability of the polymeric wall of these microspheres to oxygen. This curve was relatively sigmoidal and presented a P50 similar to that of free hemoglobin in the same experimental conditions. A ***cellulose*** 's acetate gel electrophoresis of hemoglobin extracted from the microspheres showed one band that correlates with intact hemoglobin. These results suggest that hemoglobin does not interact chemically with the polymer matrix and that the process of **microencapsulation** does not alter the hemoglobin molecule.

CONTROLLED TERM: Medical Descriptors:
absorption spectroscopy
aqueous solution
chemical reaction
conference paper
controlled study
evaporation
filtration
gel electrophoresis
human
microencapsulation
oxygen dissociation curve
permeability
emulsion
Drug Descriptors:
*microsphere
*hemoglobin
*polylactic acid
blood substitute
dichloromethane

CAS REGISTRY NO.: (hemoglobin) 9008-02-0; (polylactic acid) 26100-51-6;
(dichloromethane) 75-09-2

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ACCESSION NUMBER: 86138270 EMBASE Full-text

DOCUMENT NUMBER: 1986138270

TITLE: The formation and characterization of hydrocortisone-loaded poly((\pm)-lactide) microspheres.

AUTHOR: Cavalier M.; Benoit J.P.; Thies C.

CORPORATE SOURCE: Laboratoire de Pharmacie Galenique et Biopharmacie,
Universite Paris-Sud, Chatenay-Malabry, France

SOURCE: Journal of Pharmacy and Pharmacology, (1986) Vol. 38, No.

4, pp. 249-253. .
CODEN: JPPMAB
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Dec 1991
Last Updated on STN: 10 Dec 1991

ABSTRACT: The solvent evaporation process has been used to form hydrocortisone-loaded microspheres from poly((±)-lactide) (PLA) and a lactide-glycolide copolymer (65/35). Methylene **chloride** was the casting solvent. Partially hydrolysed (88%) poly(vinyl alcohol) and ***methylcellulose*** were used as **aqueous** phase emulsifiers. ***Methylcellulose*** was preferred, because it gave stable emulsions as the amount of hydrocortisone being **encapsulated** increased whereas poly(vinyl alcohol) did not. With **methylcellulose** as the emulsifier, a broad size range of spherical microspheres containing up to 50% (w/w) hydrocortisone could be prepared. Thermal and X-ray analyses established that poly((±)-lactide) microspheres containing hydrocortisone retained thermal events characteristic of both materials. This is evidence that such microspheres contain, to some extent, crystalline hydrocortisone domains dispersed in a PLA matrix. But most of the **encapsulated** drug was molecularly dispersed in the PLA glass. The stability of hydrocortisone in microspheres was evaluated in different storage conditions: no degradation of drug was found. The release of hydrocortisone from 250-350 µm diameter microspheres into agitated 37° C **water** (nitrogen atmosphere) was determined by HPLC analysis. The microspheres evaluated had initial hydrocortisone payloads of 12 to 47% (w/w). The rate of drug release increased as the initial drug payload carried by the microspheres increased. The release data are not adequately described by zero order, first order, or square-root-of-time release kinetics. Drug release from microspheres that contain 12% (w/w) hydrocortisone approached a plateau value well below the amount of drug actually carried by the microspheres. This is particularly true for hydrocortisone **encapsulated** in lactide-glycolide polymer.

CONTROLLED TERM: Medical Descriptors:
*drug delivery system
*drug isolation
*drug synthesis
*evaporation
priority journal
methodology
nonhuman
nonbiological model
Drug Descriptors:
*dichloromethane
*hydrocortisone
***methylcellulose**
*polyglactin
*polylactide
*polyvinyl alcohol
vinol 205
unclassified drug
CAS REGISTRY NO.: (dichloromethane) 75-09-2; (hydrocortisone) 50-23-7; (**methylcellulose**) 79484-92-7, 9004-67-5;
(polyglactin) 26780-50-7, 34346-01-5; (polylactide)
26680-10-4; (polyvinyl alcohol) 37380-95-3, 9002-89-5
CHEMICAL NAME: Vinol 205
COMPANY NAME: Southern research (United States); Baker chemical co
(United States); Air products (United States); Sigma

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ACCESSION NUMBER: 2006191881 EMBASE Full-text
TITLE: Effect of xingnao qizhi **capsule** on the expression of basic fibroblast growth factor mRNA of hippocampal tissue in mice with vascular dementia.
AUTHOR: Wu C.-S.; Yang M.-X.; Yu W.-T.; Xu H.-Z.
CORPORATE SOURCE: Prof. M.-X. Yang, College of Traditional Chinese Medicine, Hebei Medical University, Shijiazhuang 050091 Hebei Province, China
SOURCE: Chinese Journal of Clinical Rehabilitation, (20 Feb 2006) Vol. 10, No. 7, pp. 19-21. .
Refs: 5
ISSN: 1671-5926 CODEN: ZLKHAH
COUNTRY: China
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
030 Pharmacology
037 Drug Literature Index
039 Pharmacy
LANGUAGE: Chinese
SUMMARY LANGUAGE: English; Chinese
ENTRY DATE: Entered STN: 11 May 2006
Last Updated on STN: 11 May 2006

ABSTRACT: Aim: To investigate the effects of xingnao qizhi **capsule** on learning and memory function, expression of basic fibroblast growth factor (bFGF) mRNA of hippocampal tissue and histopathological changes of brain tissue in mice with vascular dementia (VD). Methods: The experiment was completed at the western area of Hebei Medical University from December 2004 to October 2005. 1 Totally 120 male Kunming mice were randomly divided into 6 groups: sham-operation group, model group, high-dose xingnao qizhi group, low-dose xingnao qizhi group, ginkgo leaf group and nimodipine group with 20 in each group. 2 VD mice models were established with cerebral ischemia repeatedly ligated on bilateral common carotid artery. Grouping intervention was performed on the second day after operation. High and low dosage xingnao qizhi group: Mice in this group were perfused with 1.84 and 0.92 g/kg xingnao qizhi *****capsule***** (produced in Hebei Medical University, consisting of shichangpu, chuanxiong, juluo and gouqizi; 6.24 g raw drug per extract; 184 g/L and 92 g/L solution were mixed with 0.5% **carboxymethylcellulose** sodium during experiment); ginkgo leaf group: Mice in this group were perfused with 0.05 g/kg ginkgo leaf (50 mg ginkgo leaf extract per pill; Guangxi Banzhou Pharmacological Limited Company; batch number: 20040902; 2.5 g/L suspension was mixed with 0.5% **carboxymethylcellulose** sodium during experiment); nimodipine group: Mice in this group were perfused with 0.04 g/kg nimodipine (Shijiazhuang Hualong Pharmacological Limited Company; batch number: 20041017, 20 mg/pill); sham-operation group and model group: Mice in both groups were perfused with 10 mL/kg saline once a day for 7 days. 3 Results of learning and memory were assayed with electric water maze; pathomorphological changes in brain tissue were observed with haemateine-eosin staining; and expression of bFGF mRNA of hippocampal tissue in mice were detected with reverse transcription polymerase chain reaction. 4 Measurement data were compared with analysis of variance and LSD method. Results: Totally 49 mice died during modeling, and other 71 mice entered the final analysis. 1 Pathomorphology under light microscope: Ischemic pathological changes were observed in hippocampus of brain tissue of mice in model group, and lesion in each drug group was lighter than that in model group. 2 Results of learning and memory: Results of mice in model were lower than those in sham operation group ($P < 0.01$); but those in each drug group were superior to those in model group ($P < 0.05-0.01$). There

was not significant difference among drug groups ($P > 0.05$). 3 Relative expression of bFGF mRNA in hippocampal tissue: That in model group was higher than that in sham-operation group ($P < 0.05$); that in high-dosage and low-dosage, xingnao qizhi groups, ginkgo leaf group and nimodipine group was higher than that in model group ($P < 0.01$); that in high-dosage xingnao qizhi group was higher than that in low-dosage xingnao qizhi group, ginkgo leaf group and nimodipine group ($P < 0.05-0.01$); there were not significant differences among low-dosage xingnao qizhi group, ginkgo leaf group and nimodipine group ($P > 0.05$). Conclusion: Xingnao qizhi **capsule** can improve learning and memory function of VD mice. The mechanisms are regulating the expression of bFGF mRNA of hippocampals tissue and relieving ischemia-reperfusion injury.

CONTROLLED TERM:

Medical Descriptors:

*multiinfarct dementia: DT, drug therapy
drug capsule
protein expression
hippocampus
brain tissue
learning
memory
histopathology
drug megadose
low drug dose
disease model
brain ischemia
carotid artery ligation
drug infusion
treatment outcome
maze test
reverse transcription polymerase chain reaction
analysis of variance
death
microscopy
reperfusion injury: CO, complication
reperfusion injury: DT, drug therapy
reperfusion injury: PC, prevention
nonhuman
mouse
animal experiment
animal model
controlled study
animal tissue
article

CONTROLLED TERM:

Drug Descriptors:

*Chinese drug: CM, drug comparison
*Chinese drug: DO, drug dose
*Chinese drug: DT, drug therapy
*Chinese drug: PR, pharmaceuticals
*Chinese drug: PD, pharmacology
*xingnao qizhi: CM, drug comparison
*xingnao qizhi: DO, drug dose
*xingnao qizhi: DT, drug therapy
*xingnao qizhi: PR, pharmaceuticals
*xingnao qizhi: PD, pharmacology
*basic fibroblast growth factor: EC, endogenous compound
messenger RNA: EC, endogenous compound
Ginkgo biloba extract: CM, drug comparison
Ginkgo biloba extract: DO, drug dose
Ginkgo biloba extract: DT, drug therapy
Ginkgo biloba extract: PD, pharmacology

nimodipine: CM, drug comparison
nimodipine: DO, drug dose
nimodipine: DT, drug therapy
nimodipine: PD, pharmacology
carboxymethylcellulose
sodium chloride
water

hematoxylin

eosin

unclassified drug

CAS REGISTRY NO.: (basic fibroblast growth factor) 106096-93-9; (nimodipine) 66085-59-4; (**carboxymethylcellulose**) 8050-38-2, 9000-11-7, 9004-32-4, 9050-04-8; (**sodium chloride**) 7647-14-5; (water) 7732-18-5; (hematoxylin) 517-28-2; (eosin) 17372-87-1, 51395-88-1, 548-26-5

COMPANY NAME: Guangxi Banzhou; Shijiazhuang Hualong

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ACCESSION NUMBER: 2002349506 EMBASE Full-text

TITLE: Taste masking science and technology applied to compacted oral solid dosage forms - Part 2.

AUTHOR: Reo J.P.; Frederickson J.K.

SOURCE: American Pharmaceutical Review, (2002) Vol. 5, No. 3, pp. 8-23. .

Refs: 106

ISSN: 1099-8012 CODEN: APHRFS

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 037 Drug Literature Index

039 Pharmacy

LANGUAGE: English

ENTRY DATE: Entered STN: 17 Oct 2002

Last Updated on STN: 17 Oct 2002

CONTROLLED TERM: Medical Descriptors:

*taste

*masking

*pharmaceutical care

drug dosage form

oral drug administration

patent

drug delivery system

microencapsulation

coacervation

phase separation

drug release

mass spectrometry

atomic force microscopy

drug coating

drug solubility

controlled study

article

Drug Descriptors:

clarithromycin: PR, pharmaceuticals

ketoprofen

indometacin: PR, pharmaceuticals

fluorouracil: PR, pharmaceuticals

phenacetin: PR, pharmaceuticals

eudragit

lactose
 sparfloxacin: PR, pharmaceuticals
 ibuprofen: PR, pharmaceuticals
 cyclohexane
 tiagabine: PR, pharmaceuticals
 microcrystalline cellulose
 riboflavin
 water
 theophylline
 beta cyclodextrin
 starch
 ethyl cellulose
 cholesterol
 talc
 alcohol
 hydroxypropylcellulose
 carboxymethylcellulose
 povidone
 triacetin
 alginic acid
 methylcellulose
 benzethonium chloride
 polysorbate 80
 unindexed drug

CAS REGISTRY NO.: (clarithromycin) 81103-11-9; (ketoprofen) 22071-15-4,
 57495-14-4; (indometacin) 53-86-1, 74252-25-8, 7681-54-1;
 (fluorouracil) 51-21-8; (phenacetin) 62-44-2; (eudragit)
 24938-16-7, 51822-44-7, 9065-11-6; (lactose) 10039-26-6,
 16984-38-6, 63-42-3, 64044-51-5; (sparfloxacin)
 111542-93-9; (ibuprofen) 15687-27-1; (cyclohexane)
 110-82-7; (tiagabine) 115103-54-3, 115103-55-4;
 (microcrystalline **cellulose**) 39394-43-9,
 51395-75-6; (riboflavin) 83-88-5; (water) 7732-18-5;
 (theophylline) 58-55-9, 5967-84-0, 8055-07-0, 8061-56-1,
 99007-19-9; (beta cyclodextrin) 7585-39-9; (starch)
 9005-25-8, 9005-84-9; (ethyl **cellulose**)
 9004-57-3; (cholesterol) 57-88-5; (talc) 14807-96-6;
 (alcohol) 64-17-5; (**hydroxypropylcellulose**)
 9004-64-2; (**carboxymethylcellulose**) 8050-38-2,
 9000-11-7, 9004-32-4, 9050-04-8; (povidone) 9003-39-8;
 (triacetin) 102-76-1; (alginic acid) 28961-37-7,
 29894-36-8, 9005-32-7, 9005-38-3; (**methylcellulose**
) 79484-92-7, 9004-67-5; (benzethonium **chloride**)
 121-54-0; (polysorbate 80) 8050-83-7, 9005-65-6
 CHEMICAL NAME: Eudragit

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ACCESSION NUMBER: 2001135768 EMBASE Full-text

TITLE: Release characteristics of microspheres prepared by
 co-spray drying Actinobacillus pleuropneumoniae antigens
 and **aqueous** ethyl-**cellulose** dispersion.

AUTHOR: Liao C.W.; Cheng I.C.; Yeh K.S.; Lin F.Y.; Weng C.N.

CORPORATE SOURCE: C.N. Weng, Department of Pathobiology, Pig Research
 Institute Taiwan, Chu-Nan, Miaoli, Taiwan, China.
 CWL02@mail.prit.org.tw

SOURCE: Journal of Microencapsulation, (2001) Vol. 18, No. 3, pp.
 285-297.

Refs: 18

ISSN: 0265-2048 CODEN: JOMIEF

COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
027 Biophysics, Bioengineering and Medical
Instrumentation
030 Pharmacology
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 30 Apr 2001

Last Updated on STN: 30 Apr 2001

ABSTRACT: Using formalin inactivated *Actinobacillus pleuropneumoniae* antigens and **aqueous ethylcellulose** dispersions, microspheres of oral vaccines were developed by a co-spray drying process. The present study attempted to determine whether the dosage formulations of microspheres could form enteric matrices. To assess the enteric characteristics, an in vitro dissolution test was performed with the AQ6-AP microspheres; 95% of the A. pleuropneumoniae protein was released within 3 h at pH7, but there was no release at pH 1.5. The scanning microscopy revealed that the surface structure of AQ6-AP microspheres became porous at neutral pH. The SDS-PAGE analysis showed that the release rate of proteins from the microspheres was pH dependent not only for the AQ6-AP formulation but also when antigens of A. pleuropneumoniae were replaced with porcine serum. The results suggest that the A. pleuropneumoniae antigens were entrapped in the AQ6 microspheres under the acidic conditions. In a mouse model, oral immunization with AQ6-AP microspheres containing A. pleuropneumoniae evoked systemic IgG and mucosal IgA responses against A. pleuropneumoniae antigens. Thus, the present method may further provide an opportunity to develop oral vaccines and mucosal immunity.

CONTROLLED TERM: Medical Descriptors:
**Actinobacillus pleuropneumoniae*
*immunization
aqueous solution
drug solubility
drug inactivation
drug synthesis
aerosol
drug dosage form
intestine absorption
in vitro study
dissolution
pH measurement
drug release
microencapsulation
scanning electron microscopy
surface property
porosity
polyacrylamide gel electrophoresis
chemical composition
chemical analysis
protein analysis
drug formulation
acidification
antibody blood level
intestine mucosa
immune response
immunity
nonhuman

female
mouse
animal experiment
animal model
controlled study
article
Drug Descriptors:
*bacterial antigen: DV, drug development
*bacterial antigen: EC, endogenous compound
*bacterial antigen: PR, pharmaceuticals
*bacterial antigen: PK, pharmacokinetics
*bacterial antigen: PO, oral drug administration
*bacterial antigen: SC, subcutaneous drug administration
*microsphere: PR, pharmaceuticals
bacterial vaccine: DV, drug development
bacterial vaccine: EC, endogenous compound
bacterial vaccine: PR, pharmaceuticals
bacterial vaccine: PK, pharmacokinetics
bacterial vaccine: PO, oral drug administration
bacterial vaccine: SC, subcutaneous drug administration
ethyl cellulose: PR, pharmaceuticals
formaldehyde
plasma protein: EC, endogenous compound
immunoglobulin G: EC, endogenous compound
immunoglobulin A: EC, endogenous compound
water
polymer
latex
lactose
sugar
polysaccharide
hydroxypropylmethylcellulose acetate succinate
nicotinamide adenine dinucleotide
bovine serum albumin
phosphate
buffer

sodium chloride

magnesium stearate
phenylpropanolamine: PR, pharmaceuticals
theophylline: PR, pharmaceuticals
antiserum: EC, endogenous compound
bacterium lipopolysaccharide: EC, endogenous compound
hemolysin: EC, endogenous compound
(ethyl **cellulose**) 9004-57-3; (formaldehyde)
50-00-0; (immunoglobulin G) 97794-27-9; (**water**)
7732-18-5; (lactose) 10039-26-6, 16984-38-6, 63-42-3,
64044-51-5; (**hydroxypropylmethylcellulose** acetate
succinate) 71138-97-1; (nicotinamide adenine dinucleotide)
53-84-9; (phosphate) 14066-19-4, 14265-44-2; (
sodium chloride) 7647-14-5; (magnesium
stearate) 557-04-0; (phenylpropanolamine) 14838-15-4,
154-41-6, 4345-16-8, 48115-38-4; (theophylline) 58-55-9,
5967-84-0, 8055-07-0, 8061-56-1, 99007-19-9

CAS REGISTRY NO.:

CHEMICAL NAME:

COMPANY NAME:

(1) Aquacoat
(1) FMC (United States)

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ACCESSION NUMBER: 2001028373 EMBASE Full-text

TITLE: Improvement of **encapsulation** efficiency of

water-in-oil-in-water emulsion with hypertonic inner **aqueous** phase.

AUTHOR: Hino T.; Shimabayashi S.; Tanaka M.; Nakano M.; Okochi H.
 CORPORATE SOURCE: T. Hino, Faculty of Pharmaceutical Sciences, The University of Tokushima, Shomachi 1-78-1, Tokushima 770-8505, Japan. hino@ph.tokushima-u.ac.jp

SOURCE: Journal of Microencapsulation, (2001) Vol. 18, No. 1, pp. 19-28.
 Refs: 16
 ISSN: 0265-2048 CODEN: JOMIEF

COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
 029 Clinical Biochemistry
 037 Drug Literature Index
 039 Pharmacy

LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 8 Feb 2001
 Last Updated on STN: 8 Feb 2001

ABSTRACT: **Water-in-oil-in-water** (w/o/w) emulsions ***encapsulating*** tryptophan or theophylline were prepared where these compounds are regarded as model drugs. The effects of **sodium chloride** on the drug entrapment into the w/o/w emulsions and on the separation of **aqueous** phases were studied. The degree of ***encapsulation*** of tryptophan in the w/o/w emulsion increased with the concentration of **sodium chloride** added in the inner ***aqueous*** phase, while it decreased with that in the outer ***aqueous*** phase. As for theophylline, although the degree increased with a concentration of **sodium chloride** in the inner phase, the effect was smaller than that on tryptophan. The difference in the effects between on tryptophan and on theophylline was attributed to their partition coefficients. Theophylline was easily leaked out from the inner phase to the outer **aqueous** phase after its dissolution and diffusion in the oil phase due to a higher partition coefficient. More than 55% of the ***aqueous*** phase was separated from the w/o/w emulsion within 24 h, when ***sodium chloride*** was not added in the inner **aqueous** phase. However, the separation was not observed when more than 0.2m ***sodium chloride*** was added. To the contrary, **sodium chloride** added in the outer **aqueous** phase accelerated the separation. It was, therefore, concluded that **sodium chloride** in the inner **aqueous** phase plays an important role in suppression of the separation and in **encapsulation** of the drug which does not penetrate into the oil membrane.

CONTROLLED TERM: Medical Descriptors:
 *microencapsulation
 emulsion
 aqueous solution
 phase transition
 chemical reaction
 chemical composition
 drug capsule
 phase separation
 concentration (parameters)
 drug mixture
 drug solubility
 partition coefficient
 dissolution

drug diffusion
drug penetration
membrane permeability
lipid membrane
controlled study
article
Drug Descriptors:
*tryptophan: CM, drug comparison
*tryptophan: PR, pharmaceuticals
*theophylline: CM, drug comparison
*theophylline: PR, pharmaceuticals
hypertonic solution
water
oil
sodium chloride
surfactant
albumin
polyacrylic acid
biochemical marker
medium chain triacylglycerol
drug carrier
polyoxyethylene derivative
hydrogenated castor oil
food additive
cellulose

CAS REGISTRY NO.: (tryptophan) 6912-86-3, 73-22-3; (theophylline) 58-55-9, 5967-84-0, 8055-07-0, 8061-56-1, 99007-19-9; (**water**) 7732-18-5; (**sodium chloride**) 7647-14-5; (polyacrylic acid) 74350-43-9, 87003-46-1, 9003-01-4, 9003-04-7; (hydrogenated castor oil) 8001-78-3; (**cellulose**) 61991-22-8, 68073-05-2, 9004-34-6
NAME OF PRODUCT: Triester F-180; Hexaglyn PR-15; HCO-60
COMPANY NAME: Nikko Yakuhin (Japan)

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ACCESSION NUMBER: 1999000498 EMBASE Full-text
TITLE: Calcium alginate **capsules** containing a hydrophilic polymer for the **encapsulation** of swine spermatozoa.
AUTHOR: Torre M.L.; Maggi L.; Giunchedi P.; Conte U.; Vigo D.; Maffeo G.
CORPORATE SOURCE: U. Conte, Dipartimento di Chimica Farmaceutica, Universita di Pavia, Viale Taramelli 12, 27100 Pavia, Italy
SOURCE: S.T.P. Pharma Sciences, (1998) Vol. 8, No. 4, pp. 233-236.

Refs: 11
ISSN: 1157-1489 CODEN: STSSE5

COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 010 Obstetrics and Gynecology
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English
SUMMARY LANGUAGE: English; French
ENTRY DATE: Entered STN: 28 Jan 1999
Last Updated on STN: 28 Jan 1999

ABSTRACT: A preparation method of calcium alginate beads containing swine spermatozoa was developed. A suspension usually employed for artificial insemination and containing living spermatozoa, to which was added

hydroxypropylmethylcellulose and **calcium chloride**, was dropped into a sodium alginate solution. Calcium ions diffusing out of the droplets, reacted with the sodium alginate, leading to the formation of a ***water*** -insoluble calcium alginate gel membrane. Half of the ***capsules*** obtained was cross-linked by interfacial polymerization using an **aqueous** solution of protamine sulphate. The two kinds of ***capsules*** (cross-linked and not) containing spermatozoa were then transferred to a suitable extender for swine sperm and their morphology (scanning electron microscope) and in vitro sperm viability (survival time, motility and acrosomal integrity) was studied.

CONTROLLED TERM: Medical Descriptors:
 ***encapsulation**
 *sperm preservation
 suspension
 artificial insemination
 cross linking
 polymerization
 aqueous solution
 scanning electron microscopy
 swine
 acrosome
 spermatozoon motility
 cell viability
 nonhuman
 controlled study
 animal cell
 article
Drug Descriptors:
 *calcium alginate: PR, pharmaceuticals
 *polymer: PR, pharmaceuticals
 hydroxypropylmethylcellulose: PR, pharmaceuticals
 calcium chloride: PR, pharmaceuticals
 protamine sulfate: PR, pharmaceuticals
 methylcellulose
CAS REGISTRY NO.: (calcium alginate) 9005-35-0; (
 hydroxypropylmethylcellulose) 9004-65-3; (
 calcium chloride) 10043-52-4; (protamine
 sulfate) 9009-65-8; (**methylcellulose**) 79484-92-7,
 9004-67-5
CHEMICAL NAME: (1) Methocel
COMPANY NAME: (1) Colorcon (United Kingdom); Farmitalia Carlo Erba
 (Italy); Sigma

L117 ANSWER 54 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
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ACCESSION NUMBER: 2000:292298 BIOSIS Full-text
DOCUMENT NUMBER: PREV200000292298
TITLE: An enhanced process for **encapsulating** aspirin in
 ethyl **cellulose microcapsules** by
 solvent evaporation in an O/W emulsion.
AUTHOR(S): Yang, C.-Y.; Tsay, S.-Y.; Tsiang, R. C.-C. [Reprint author]
CORPORATE SOURCE: Department of Chemical Engineering, National Chung Cheng
 University, Chiayi, 621, China
SOURCE: Journal of Microencapsulation, (May-June, 2000) Vol. 17,
 No. 3, pp. 269-277. print.
CODEN: JOMIEF. ISSN: 0265-2048.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000

Last Updated on STN: 7 Jan 2002

ABSTRACT:An enhanced process for **microencapsulating** aspirin in ***ethylcellulose*** was demonstrated using an oil-in-water emulsification/solvent evaporation technique. Methylene **chloride** (CH₂Cl₂) was used as the dispersed medium and **water** as the dispersing medium. The recovered weight, particle size distribution, aspirin loading efficiency, and the aspirin release rate of **microcapsules** were analysed. The addition of appropriate amounts of non-solvent (n-heptane) prior to the emulsification increases the recovered weight, but decreases the size of the formed **microcapsules**. The addition of non-solvent also changes the **microcapsule** characteristics, resulting in a coarser surface and an increased release rate. Increasing the polymer (**ethylcellulose**) concentration in the dispersed phase increases the size of the ***microcapsules***, the recovered weight, and loading efficiency, but decreases the release rate. The release rate follows first-order kinetics during the first 12 h, suggesting a monolithic system with aspirin uniformly distributed in the **microcapsule**.

CONCEPT CODE: Pharmacology - General 22002
Biochemistry methods - General 10050
Biochemistry studies - General 10060
Biophysics - General 10502

INDEX TERMS: Major Concepts
Methods and Techniques; Pharmaceuticals (Pharmacology)

INDEX TERMS: Chemicals & Biochemicals
aspirin: antiinflammatory-drug, pharmacokinetics

INDEX TERMS: Methods & Equipment
ethyl **cellulose microcapsules**: drug
delivery method; solvent evaporation:
microencapsulation process, oli-in-water
emulsion, preparation method

REGISTRY NUMBER: 50-78-2 (aspirin)

L117 ANSWER 55 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:109521 BIOSIS Full-text
DOCUMENT NUMBER: PREV200000109521
TITLE: Controlled release of aldicarb from carboxymethyl
cellulose microspheres: In vitro and field
applications.

AUTHOR(S): Kok, Fatma N.; Arica, M. Yakup; Gencer, Oktay; Abak, Kazim;
Hasirci, Vasif [Reprint author]

CORPORATE SOURCE: Department of Biological Sciences, Biotechnology Research
Unit, Middle East Technical University, 06531, Ankara,
Turkey

SOURCE: Pesticide Science, (Dec., 1999) Vol. 55, No. 12, pp.
1194-1202. print.
CODEN: PSSCBG. ISSN: 0031-613X.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Mar 2000
Last Updated on STN: 3 Jan 2002

ABSTRACT:Aldicarb is a carbamate pesticide that is widely used throughout the world in the protection of crops (eg cotton, nuts, potatoes, onion, tobacco, sugar beet and sugar cane). In Turkey, especially in the Cukurova region, it is used for the control of the cotton white fly (*Bemisia tabaci*) which attacks cotton plants cultivated in this region. Aldicarb contamination in surface and ground **water** is a serious problem in several countries, partly due to its high **water** solubility. It is also highly toxic to mammals. In order to overcome these problems, microspheres of aldicarb were prepared using carboxymethyl **cellulose** (CMC) as the biodegradable support material

cross-linked with aluminium **chloride**. A strong hysteresis behaviour was observed upon drying and reswelling. **Encapsulation** efficiency was in the range 12-23% and aldicarb contents of 5.7-10.3 mg per 100 mg of microspheres was achieved. In vitro release was distinctly Fickian, and Higuchi constants were very close to 0.5. Release in pots revealed that only one sample had a release capability for more than four weeks. In the cotton plot much longer durations of release (more than seven weeks) were observed while a commercial granular formulation released its content immediately. It was thus possible to construct a controlled pesticide release system that prolonged the bioavailability to about eight weeks.

CONCEPT CODE: Economic entomology - Chemical control and apparatus
60016
Pest control: general, pesticides and herbicides 54600
Economic entomology - Field, flower and truck crops 60004

INDEX TERMS: Major Concepts
Economic Entomology; Pest Assessment Control and
Management; Pesticides

INDEX TERMS: Chemicals & Biochemicals
aldicarb: insecticide

INDEX TERMS: Methods & Equipment
carboxymethyl **cellulose** microsphere release
system: controlled release, field application, in vitro
application, pest control method

GEOGRAPHICAL TERMS: Turkey (Palearctic region)

ORGANISM: Classifier
Homoptera 75324
Super Taxa
Insecta; Arthropoda; Invertebrata; Animalia
Organism Name
Bemisia tabaci [cotton white fly]: pest
Taxa Notes
Animals, Arthropods, Insects, Invertebrates

ORGANISM: Classifier
Malvaceae 26330
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
cotton: host
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular
Plants

REGISTRY NUMBER: 116-06-3 (aldicarb)

L117 ANSWER 56 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
STN

ACCESSION NUMBER: 1999:106559 BIOSIS Full-text
DOCUMENT NUMBER: PREV199900106559
TITLE: Effect of protective colloids on the induction of
polymorphic changes in indomethacin agglomerates after
solvent evaporation from o/w emulsions.

AUTHOR(S): Lin, S.-Y. [Reprint author]; Chen, K.-S.; Teng, H.-S.
CORPORATE SOURCE: Dep. Med. Res. Educ., Veterans Gen. Hosp.-Taipei, Taipei,
Taiwan

SOURCE: Journal of Microencapsulation, (Jan.-Feb., 1999) Vol. 16,
No. 1, pp. 39-47. print.
CODEN: JOMIEF. ISSN: 0265-2048.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

ABSTRACT: Indomethacin (IMC) agglomerates were prepared by the solvent evaporation process from o/w emulsions containing different protective colloids in the external aqueous solution. The types of protective colloids inducing the polymorphic transformation of IMC in the agglomerates without wall material were investigated. The composition and its polymorphs were evaluated from the X-ray diffraction patterns, IR spectra and DSC thermograms. The results indicate that when pectin, beta-cyclodextrin, sodium alginate or sodium dodecyl sulphate acted as a protective colloid, the respective IMC agglomerates consisted only of the alpha form of IMC. When gelatin or hydroxypropyl ***methylcellulose*** was used as a protective colloid, the amorphous, alpha and gamma forms as well as methylene **chloride** solvates of IMC were found in the IMC agglomerates. There was only methylene **chloride** solvate of IMC with a small amount of amorphous form in the IMC agglomerates prepared from albumin as a protective colloid, while IMC agglomerates prepared from **methylcellulose**, polyvinyl alcohol or biosoluble polymer consisted of the mixture of amorphous and alpha forms, and methylene ***chloride*** solvate of IMC. When polyvinyl pyrrolidone was applied to act as a protective colloid, the mixture of methylene **chloride** solvate and gamma form of IMC with less quantity of amorphous form was found in its IMC agglomerates. This strongly suggests that the composition of IMC agglomerates prepared from the solvent evaporation process was significantly influenced by the type of protective colloids used.

CONCEPT CODE: Pharmacology - General 22002
Biochemistry methods - General 10050
Biochemistry studies - General 10060
Biophysics - Molecular properties and macromolecules 10506
Pathology - Therapy 12512
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Routes of immunization, infection and therapy 22100
In vitro cellular and subcellular studies 32600

INDEX TERMS: Major Concepts
Methods and Techniques; Pharmaceuticals (Pharmacology)

INDEX TERMS: Chemicals & Biochemicals
colloids; indomethacin agglomerates: molecular characteristics, polymorphic changes, preparation; indomethacin: pharmaceutical; oil-in-**water** emulsions; solvents

INDEX TERMS: Methods & Equipment
solvent evaporation process: **microencapsulation** method

INDEX TERMS: Miscellaneous Descriptors
microencapsulation; polymorphic transformations

REGISTRY NUMBER: 53-86-1 (indomethacin)

L117 ANSWER 57 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:397397 BIOSIS Full-text
DOCUMENT NUMBER: PREV199799696600
TITLE: Development of multiparticulate-system composed of sustained release-microspheres of pseudoephedrine cndot HCl and immediate release-pellets of terfenadine using solvent evaporation method and spherically agglomerated crystallization process.

AUTHOR(S): Rhee, Gye Ju [Reprint author]; Do, Ki Chan; Kim, Eun Hee; Park, Jong Bum; Whang, Sung Joo

CORPORATE SOURCE: Coll. Pharmacy, Chungnam Natl. Univ., Taejon, South Korea

SOURCE: Yakhak Hoeji, (1997) Vol. 41, No. 3, pp. 305-311.
CODEN: YAHOA3. ISSN: 0513-4234.
DOCUMENT TYPE: Article
LANGUAGE: Korean
ENTRY DATE: Entered STN: 10 Sep 1997
Last Updated on STN: 10 Sep 1997

ABSTRACT: Sustained release-microspheres and immediate release-pellets were prepared to develop a controlled release multiparticulate system containing both **water** soluble and insoluble drugs. Pseudoephedrine cndot HCl (EPD) and terfenadine (TRF) were used as model drugs, respectively. Sustained release-EPD microspheres were prepared by solvent evaporation method using Eudragit RL or RS as a matrix combined with pH-sensitive film coating. Smaller EPD microspheres were obtained when smaller amount of Eudragit as a matrix material or larger amount of magnesium stearate as a dispersing agent was used. However the obtained microspheres did not show sufficient sustained release characteristics. About 97% of EPD was released after 1 hr irrespective of matrix material used. Subsequent coating of the microspheres with pH-insensitive polymer such as Eudragit RS or **ethylcellulose** (EC) resulted good sustained release profiles. Especially EC-coated EPD microspheres (1:1 of microspheres:polymer w/w ratio) resulted in 37.5, 73.3 and 92.0% release of **encapsulated** EPD in distilled **water** after 1, 3 and 7 hr, respectively. It corresponds to mean dissolution time (MDT) of 2.3 hr, which is much larger than that of un-coated EPD microspheres (0.048 hr). Immediate release TRF pellets were prepared by spherically agglomerated crystallization using Eudragit E as an inert matrix and methylene ***chloride*** as a liquid binder. Using Eudragit E alone as a matrix resulted in satisfactory physical properties of the pellets such as sphericity, surface texture and flowability, but led to slower release of TRF from pellets than un-modified TRF powder (MDT of 1.70 vs 1.43 hr in pH 1.2 dissolution medium). Introducing propylene glycol or sodium lauryl sulfate as an emulsifier brought about faster release of TRF from pellets (MDT of 1.14 and 0.95 hr, respectively). In conclusion, **microencapsulation** by solvent evaporation combined with film coating and spherically agglomerated crystallization were successfully utilized to prepare controlled release multiparticulate system composed of sustained release EPD-microspheres and immediate release TRF pellets.

CONCEPT CODE: Biochemistry studies - General 10060
Pharmacology - General 22002
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Pharmacology
INDEX TERMS: Chemicals & Biochemicals
TERFENADINE; EUDRAGIT; **ETHYLCELLULOSE**;
PROPYLENE GLYCOL; SODIUM LAURYL SULFATE
INDEX TERMS: Miscellaneous Descriptors
ETHYLCELLULOSE; EUDRAGIT; FLOWABILITY;
IMMEDIATE RELEASE-PELLETS; MEAN DISSOLUTION TIME;
METHODOLOGY; MULTIPARTICULATE-SYSTEM; PHARMACEUTICALS;
PHARMACOLOGICAL METHOD; PROPYLENE GLYCOL; PSEUDOEPHEDRIN
HYDROCHLORIDE; SODIUM LAURYL SULFATE; SOLVENT
EVAPORATION METHOD; SPHERICALLY AGGLOMERATED
CRYSTALLIZATION PROCESS; SPHERICITY; SURFACE TEXTURE;
SUSTAINED RELEASE-MICROSOPHERES; TERFENADINE
REGISTRY NUMBER: 50679-08-8 (TERFENADINE)
9004-57-3 (**ETHYLCELLULOSE**)
57-55-6 (PROPYLENE GLYCOL)
151-21-3 (SODIUM LAURYL SULFATE)
9065-11-6 (EUDRAGIT)

ACCESSION NUMBER: 1997:314454 BIOSIS Full-text
 DOCUMENT NUMBER: PREV199799604942
 TITLE: Preparation of **capsules** using the temperature sensitive polymer and properties.
 AUTHOR(S): Tanaka, Masato; Ueda, Yusuke; Kimura, Isao; Taguchi, Yoshinari
 CORPORATE SOURCE: Dep. Chem. Eng., Niigata Univ., 2-8050 Ikarashi, Niigata-shi, Niigata 950-21, Japan
 SOURCE: Nippon Shokuhin Kagaku Kogaku Kaishi, (1997) Vol. 44, No. 3, pp. 199-204.
 ISSN: 1341-027X.
 DOCUMENT TYPE: Article
 LANGUAGE: Japanese
 ENTRY DATE: Entered STN: 26 Jul 1997
 Last Updated on STN: 26 Jul 1997
 ABSTRACT: **Capsules** were prepared by using the temperature sensitive polymer (polyvinylacetal diethylaminoacetate; AEA) as shell material. Salad oil as a core material was **encapsulated** and Sodium alginate (AN) was used by mixing with AEA in order to prevent the core material from leaking. The aqueous solution of 5 degree C composed of AEA and AN, in which salad oil was dispersed, was dropped into the aqueous solution of 80 degree C dissolving *****calcium*** chloride** through the nozzle. It was investigated how the preparation conditions affected the properties of **capsules**. *****Capsules***** prepared were spherical and matrix type. As the concentration of AEA increased, the **capsule** sizes increased and the content of core material decreased. Furthermore, it was found that the increase in the concentration of AEA could repress the release of **water** contained in the matrix and core material. The degree of this repression was increased by coating the surface of **capsules** due to **methylcellulose** (MC).
 CONCEPT CODE: Biochemistry methods - General 10050
 Biophysics - Bioengineering 10511
 INDEX TERMS: Major Concepts
 Biochemistry and Molecular Biophysics; Methods and Techniques
 INDEX TERMS: Chemicals & Biochemicals
 SODIUM
 INDEX TERMS: Miscellaneous Descriptors
 chemical industry; AEA; BIOBUSINESS; **CAPSULE**
 PREPARATION; METHODOLOGY; POLYVINYLACETAL
 DIETHYLAMINOACETATE; SODIUM ALGINATE; SYNTHETIC METHOD;
 TEMPERATURE SENSITIVE POLYMER
 REGISTRY NUMBER: 7440-23-5 (SODIUM)

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ACCESSION NUMBER: 1994:182964 BIOSIS Full-text
 DOCUMENT NUMBER: PREV199497195964
 TITLE: Porosity-controlled **ethylcellulose** film coating:
 II. Spontaneous porous film formation in the spraying process and its solute permeability.
 AUTHOR(S): Narisawa, Shinji [Reprint author]; Yoshino, Hiroyuki; Hirakawa, Yoshiyuki; Noda, Kazuo
 CORPORATE SOURCE: Pharmaceuticals Res. Lab., Tanabe Seiyaku Co. Ltd., 16-89, Kashima 3-chome, Yodogawa-ku, Osaka 532, Japan
 SOURCE: International Journal of Pharmaceutics (Amsterdam), (1994) Vol. 104, No. 2, pp. 95-106.
 CODEN: IJPHDE. ISSN: 0378-5173.
 DOCUMENT TYPE: Article
 LANGUAGE: English

ENTRY DATE: Entered STN: 26 Apr 1994

Last Updated on STN: 27 Apr 1994

ABSTRACT: A new, simple porous film formation technique for the coating of ***capsule*** -type controlled release dosage forms was investigated. When an ***ethylcellulose*** -ethanol-**water** ternary mixture was sprayed, a porous film was spontaneously formed during the spraying process on the basis of the phase separation principle. Various factors influencing the porosity of the resultant sprayed film were examined. The film porosity increased considerably with decreasing ethanolic concentration, whereas the polymer concentration of the spraying solution had only a slight effect and the molecular weight of the polymer even less influence. Temperature and relative humidity also apparently affected the porosity of the resultant film. To assess quantitatively the effect of film porosity on solute permeability, permeation studies were performed using five model drugs with different lipophilicities; potassium **chloride**, theophylline, salicylic acid, sodium salicylate and diltiazem hydrochloride. The permeation rate increased considerably with increasing film porosity. An apparent relationship between film porosity and permeability could be expressed by a power function. These results suggested that solutes predominantly permeate through micro-pores of the films, and hence that the permeation rate depends on the film structure rather than on the physicochemical properties of the solute.

CONCEPT CODE: Biochemistry methods - Carbohydrates 10058
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Carbohydrates 10068
Biochemistry studies - Minerals 10069
Biophysics - General 10502
Biophysics - Molecular properties and macromolecules 10506
Pharmacology - General 22002

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Pharmacology

INDEX TERMS: Chemicals & Biochemicals
ETHYLCELLULOSE; POTASSIUM **CHLORIDE**;
THEOPHYLLINE; SALICYLIC ACID; SODIUM SALICYLATE;
DILTIAZEM HYDROCHLORIDE

INDEX TERMS: Miscellaneous Descriptors
CONTROLLED RELEASE DOSAGE FORM; DILTIAZEM HYDROCHLORIDE;
DRUG DELIVERY SYSTEM; FILM STRUCTURE; PHARMACEUTICAL
METHOD; POTASSIUM **CHLORIDE**; SALICYLIC ACID;
SODIUM SALICYLATE; SYNTHETIC METHOD; THEOPHYLLINE

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates,
Vertebrates

REGISTRY NUMBER: 9004-57-3 (**ETHYLCELLULOSE**)
7447-40-7 (POTASSIUM **CHLORIDE**)
58-55-9 (THEOPHYLLINE)
69-72-7 (SALICYLIC ACID)
54-21-7 (SODIUM SALICYLATE)
33286-22-5 (DILTIAZEM HYDROCHLORIDE)

LANGUAGE: English
ENTRY DATE: Entered STN: 27 Feb 1993
Last Updated on STN: 28 Feb 1993

ABSTRACT: **Microcapsules** of indomethacin and ascorbic acid were prepared by phase separation of **ethylcellulose** from cyclohexane using polyisobutylene as a coacervation inducing agent. Different amounts of solid **sodium chloride** were added to the **microcapsule** wall in order to alter the porosity of the film and hence to enhance the release of the core materials. The **microcapsules** prepared were matrix type, coacervates of many drug particles and **ethylcellulose**. The release of the poorly **water**-soluble indomethacin was found to be very slow from the **ethylcellulose microcapsules**, but it was accelerated considerably with increasing amounts of **sodium chloride**. Indomethacin released through the pores formed when **sodium chloride** dissolved from the **microcapsular** film. The release was controlled by the solubility at the weakly acidic drug. Thus a good linearity for the release data was obtained with the Hixson-Crowell cube-root law. The release of the **water**-soluble ascorbic acid from matrix-type **microcapsules** was observed to be incomplete and strongly dependent on the core/wall ratio of the **microcapsules**. The release of ascorbic acid accelerated in some degree as a function of **sodium chloride** from the **microcapsules** of higher core to wall ratio, but the enhancement in drug release was quite minimal with the thicker walled ones. **Sodium chloride** particles acted as pore formers, only at the surface of the inhomogeneous **microcapsular** matrices. The release of the drug was considered to be diffusion controlled having a biphasic release profile against the square root of time.

CONCEPT CODE: Biochemistry studies - General 10060
Biophysics - Molecular properties and macromolecules 10506
Pathology - Inflammation and inflammatory disease 12508
Pathology - Therapy 12512
Metabolism - General metabolism and metabolic pathways 13002
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Metabolism;
Pathology; Pharmacology

INDEX TERMS: Chemicals & Biochemicals
ETHYLCELLULOSE; SODIUM CHLORIDE; INDOMETHACIN

INDEX TERMS: Miscellaneous Descriptors
ANTIINFLAMMATORY-DRUG; CONTROLLED RELEASE; INDOMETHACIN;
PHARMACEUTICAL ADJUNCT; PHARMACOKINETICS; **WATER SOLUBILITY**

REGISTRY NUMBER: 9004-57-3 (**ETHYLCELLULOSE**)
7647-14-5 (**SODIUM CHLORIDE**)
53-86-1 (INDOMETHACIN)

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ACCESSION NUMBER: 1978:192291 BIOSIS Full-text
DOCUMENT NUMBER: PREV197866004788; BA66:4788
TITLE: INVESTIGATION OF THE PROCESS OF MICRO **ENCAPSULATION** OF **WATER** SOLUBLE VITAMINS.

AUTHOR(S): KOZLOVA I V [Reprint author]; DONTSOVA G I; CHLENOV V A;
LEBEDENKO V YA; GRYADUNOVA G P
CORPORATE SOURCE: ALL-UNION VITAMIN RES INST, MINIST MED IND USSR, MOSCOW,
USSR
SOURCE: Farmatsiya (Moscow), (1977) Vol. 26, No. 6, pp. 37-39.
CODEN: FRMTAL. ISSN: 0367-3014.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN
ABSTRACT: The process of **microencapsulating** finely pulverized ascorbic
acid and thiamine **chloride** by the method of isolating the new phase
of a highly concentrated polymer (ethyl-, acetyl-, acetophthalate
celluloses) in an organic solvent (methyl-ethyl ketone, acetone,
hexane) depends on the concentration of the polymer and its viscosity. The
rate of release of **water**-soluble vitamins from **microcapsules**
is influenced by the type of polymer coating. The time for releasing 90% of
the medicinal substances used in vitro tests does not exceed 30 min.
CONCEPT CODE: Biochemistry methods - Vitamins 10053
Biochemistry studies - Vitamins 10063
Pharmacology - General 22002
In vitro cellular and subcellular studies 32600
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Pharmacology
INDEX TERMS: Miscellaneous Descriptors
ASCORBIC-ACID THIAMINE/
REGISTRY NUMBER: 50-81-7Q (ASCORBIC-ACID)
62624-30-0Q (ASCORBIC-ACID)
59-43-8 (THIAMINE)

=> d his full

(FILE 'HOME' ENTERED AT 08:40:27 ON 05 MAR 2007)

FILE 'STNGUIDE' ENTERED AT 08:40:33 ON 05 MAR 2007
D COST

FILE 'CAPLUS' ENTERED AT 08:48:32 ON 05 MAR 2007

E US2005-559519/APPS
L1 1 SEA ABB=ON PLU=ON US2005-559519/AP
D SCA
SEL RN

FILE 'REGISTRY' ENTERED AT 08:50:20 ON 05 MAR 2007

L2 7 SEA ABB=ON PLU=ON (10043-52-4/BI OR 7647-14-5/BI OR 7786-30-3
/BI OR 9004-62-0/BI OR 9004-64-2/BI OR 9004-65-3/BI OR
9004-67-5/BI)
L3 8522 SEA ABB=ON PLU=ON CELLULOSE/CNS
L4 4 SEA ABB=ON PLU=ON L2 AND L3
D SCA

FILE 'STNGUIDE' ENTERED AT 08:51:17 ON 05 MAR 2007

FILE 'REGISTRY' ENTERED AT 09:25:04 ON 05 MAR 2007

L5 3 SEA ABB=ON PLU=ON L2 NOT L4
D SCA

FILE 'CAPLUS' ENTERED AT 09:25:56 ON 05 MAR 2007

L6 7 SEA ABB=ON PLU=ON MOTOUNE S?/AU
L*** DEL 33 S KEDA Y?/AU
L7 6112 SEA ABB=ON PLU=ON IKEDA Y?/AU
L8 7 SEA ABB=ON PLU=ON L6 AND L7
D SCA
E DRUG DELIVERY SYSTEMS+NT/CT
E DRUG DELIVERY SYSTEMS+ALL/CT
E DRUG DELIVERY SYSTEMS+MAX/CT
L9 149363 SEA ABB=ON PLU=ON ?CAPSUL?/BI
L*** DEL 0 S DRUG DELIVERY SYSTEMS+OLD/NT
L10 227466 SEA ABB=ON PLU=ON DRUG DELIVERY SYSTEMS+OLD/CT
L11 25392 SEA ABB=ON PLU=ON L10 (L) L9
L12 414044 SEA ABB=ON PLU=ON ?CELLULOS?/BI
L13 205107 SEA ABB=ON PLU=ON L3
L14 35968 SEA ABB=ON PLU=ON L4
E CHLORIDES+ALL/CT
L15 4316 SEA ABB=ON PLU=ON ALKALI METAL CHLORIDES/CT
L16 1210 SEA ABB=ON PLU=ON ALKALINE EARTH CHLORIDES/CT
L17 623 SEA ABB=ON PLU=ON TRANSITION METAL CHLORIDES/CT
L18 1156 SEA ABB=ON PLU=ON RARE EARTH CHLORIDES/CT
L19 642 SEA ABB=ON PLU=ON INORGANIC CHLORID?/BI
L20 187625 SEA ABB=ON PLU=ON L5
L21 150 SEA ABB=ON PLU=ON L11 AND L14 AND L20
L22 1668122 SEA ABB=ON PLU=ON (THU OR BAC OR DMA OR PAC OR PKT)/RL
L*** DEL 0 S L4 (L) L5 (L) L22
L*** DEL 0 S (L4 (L) L22) (L) (L5 (L) L22)
L23 614 SEA ABB=ON PLU=ON (L4 (L) L22) AND (L5 (L) L22)
L24 132 SEA ABB=ON PLU=ON L23 AND L11
E SALT+ALL/CT
E SOLUTION+ALL/CT

```

      E E2+ALL/CT
L*** DEL      6 S (SALT/BI OR SALINE/BI) (2A) (SOLUTION?/BI)/BI
L25      93555 SEA ABB=ON PLU=ON (SALT OR SALINE)/BI (2A) SOLUTION?/BI
L26      2 SEA ABB=ON PLU=ON L24 AND L25
          D SCA
L27      2 SEA ABB=ON PLU=ON L21 AND L25
          D SCA
L28      38 SEA ABB=ON PLU=ON L24 AND SOLUTION?/BI

      FILE 'REGISTRY' ENTERED AT 09:56:12 ON 05 MAR 2007
L29      1 SEA ABB=ON PLU=ON WATER/CN

      FILE 'CAPLUS' ENTERED AT 09:56:21 ON 05 MAR 2007
L*** DEL      1 S L24 AND 29
L30      3 SEA ABB=ON PLU=ON L24 AND L29
          D SCA
L31      21 SEA ABB=ON PLU=ON L28 AND (WATER/BI OR AQUEOUS/BI)
          D KWIC 1-10
L32      13 SEA ABB=ON PLU=ON (L5 (L) L22) AND (L29 (L) L22) AND L11
          D SCA
L*** DEL      355 S 32 AND L12
L33      4 SEA ABB=ON PLU=ON L32 AND L12
          D SCA
L34      4 SEA ABB=ON PLU=ON (L13 OR L14) AND L32
          D SCA
L35      16 SEA ABB=ON PLU=ON L26 OR L27 OR L30 OR L32 OR L33
L36      7 SEA ABB=ON PLU=ON L26 OR L27 OR L30 OR L33
          D SCA
L37      272 SEA ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14) AND (L15 OR
          L16 OR L17 OR L18 OR L19 OR L20)
L38      201 SEA ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14) AND ((L15 OR
          L16 OR L17 OR L18 OR L19 OR L20) (L) L22)
L39      112 SEA ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14) AND (L15 OR
          L16 OR L17 OR L18 OR L19 OR L20) AND (L29 OR WATER/BI OR
          AQUEOUS/BI OR L25)
L40      105 SEA ABB=ON PLU=ON L39 NOT L36
          D KWIC 1-10
L41      5 SEA ABB=ON PLU=ON L39 AND (L29 (L) L22)
          D SCA
L42      3 SEA ABB=ON PLU=ON L25 AND L40
          D SCA
L43      79 SEA ABB=ON PLU=ON L11 AND (L12 OR L13 OR L14) AND ((L15 OR
          L16 OR L17 OR L18 OR L19 OR L20) (L) L22) AND (L29 OR WATER/BI
          OR AQUEOUS/BI OR L25)
L44      69 SEA ABB=ON PLU=ON L43 NOT (L36 OR (L41 OR L42))
          D KWIC 1-10
          E ACTIVITY+ALL/CT
          E E2+ALL/CT
L45      3 SEA ABB=ON PLU=ON L44 AND ?ACTIVI?/BI
          D KWIC 1-3
L46      10415 SEA ABB=ON PLU=ON WATER/BI (1A) ACTIVIT?/BI
L47      2 SEA ABB=ON PLU=ON L43 AND L46
          D SCA
L48      5 SEA ABB=ON PLU=ON L43 AND L25
          D SCA
L49      68 SEA ABB=ON PLU=ON L44 NOT (L47 OR L48)
L50      17 SEA ABB=ON PLU=ON L43 AND EXTRACT?/BI
          D SCA
L51      27 SEA ABB=ON PLU=ON L26 OR L27 OR L30 OR L33 OR L41 OR L42 OR
          L47 OR L48 OR L50

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D COST

L52 1 SEA ABB=ON PLU=ON (L6 OR L7) AND L51

FILE 'MEDLINE' ENTERED AT 10:53:06 ON 05 MAR 2007

L53 1 SEA ABB=ON PLU=ON L6 AND L7
D TRIAL

L54 82526 SEA ABB=ON PLU=ON ?CAPSUL?

L55 6771 SEA ABB=ON PLU=ON CAPSULES/CT

L56 49650 SEA ABB=ON PLU=ON SODIUM CHLORIDE
D TRIAL
D TRIAL 100

L57 2701 SEA ABB=ON PLU=ON MAGNESIUM CHLORIDE

L58 7001 SEA ABB=ON PLU=ON CALCIUM CHLORIDE

L59 98118 SEA ABB=ON PLU=ON CHLORIDES+NT/CT

L60 58826 SEA ABB=ON PLU=ON ?CELLULOS?

L61 3263 SEA ABB=ON PLU=ON L4

L62 367309 SEA ABB=ON PLU=ON WATER

L63 1169 SEA ABB=ON PLU=ON WATER ACTIVIT?

L64 73275 SEA ABB=ON PLU=ON AQUEOUS

L65 181831 SEA ABB=ON PLU=ON EXTRACT

L66 356191 SEA ABB=ON PLU=ON EXTRACT?

L67 9 SEA ABB=ON PLU=ON (L54 OR L55) AND (L56 OR L57 OR L58 OR
L59) AND (L60 OR L61) AND L62
D TRIAL 1-9

L68 0 SEA ABB=ON PLU=ON (L54 OR L55) AND (L56 OR L57 OR L58 OR
L59) AND (L60 OR L61) AND L63

L69 6 SEA ABB=ON PLU=ON (L54 OR L55) AND (L56 OR L57 OR L58 OR
L59) AND (L60 OR L61) AND (L63 OR L64 OR L65 OR L66)

L70 3 SEA ABB=ON PLU=ON L69 NOT L67
D TRIAL 1-3
D KWIC 1-3

L71 19619 SEA ABB=ON PLU=ON (SALT OR SALINE)/BI (2A) SOLUTION?/BI

L72 311 SEA ABB=ON PLU=ON (L54 OR L55) AND L71

L73 68 SEA ABB=ON PLU=ON (L54 OR L55) AND L71 AND L66
D TRIAL 1-10

L74 6771 SEA ABB=ON PLU=ON CAPSULES/CT

L75 3745 SEA ABB=ON PLU=ON DOSAGE FORMS/CT

L76 2 SEA ABB=ON PLU=ON L73 AND (L74 OR L75)
D TRIAL 1-2
D KWIC 1-2

L77 18 SEA ABB=ON PLU=ON L72 AND L74
D TRIAL 1-18
D KWIC 1-18
D KWIC 1-18

L78 0 SEA ABB=ON PLU=ON L77 AND (L60 OR L61)

L79 23 SEA ABB=ON PLU=ON (L54 OR L55) AND (L56 OR L57 OR L58 OR
L59) AND (L60 OR L61)

L80 14 SEA ABB=ON PLU=ON L79 NOT L67
D TRIAL 1-14

L81 23 SEA ABB=ON PLU=ON L67 OR L80

L82 9 SEA ABB=ON PLU=ON L81 AND WATER

L83 0 SEA ABB=ON PLU=ON L80 AND WATER

L84 3 SEA ABB=ON PLU=ON L80 AND (L62 OR L63 OR L64 OR L65 OR L66)
D TRIAL 1-3

L85 4 SEA ABB=ON PLU=ON L80 AND SOLUTION?
D TRIAL 1-4

L86 15 SEA ABB=ON PLU=ON L79 AND ((L62 OR L63 OR L64 OR L65 OR L66)
OR SALT OR SAILIN? OR SOLUTION?)

FILE 'EMBASE' ENTERED AT 13:10:28 ON 05 MAR 2007

FILE 'MEDLINE' ENTERED AT 13:10:46 ON 05 MAR 2007
L87 0 SEA ABB=ON PLU=ON L53 AND (L67 OR L86)

FILE 'EMBASE' ENTERED AT 13:11:06 ON 05 MAR 2007
L88 2 SEA ABB=ON PLU=ON L6 AND L7
L89 80395 SEA ABB=ON PLU=ON ?CAPSUL?
E CAPSULE+ALL/CT
E E1+ALL/CT
E E1+BT/CT
L90 68198 SEA ABB=ON PLU=ON (L56 OR L57 OR L58)
E CHLORIDE+ALL/CT
L91 191889 SEA ABB=ON PLU=ON CHLORIDE?
L92 43712 SEA ABB=ON PLU=ON ?CELLULOS?
L93 110 SEA ABB=ON PLU=ON L89 AND (L90 OR L91) AND L92
L94 50953 SEA ABB=ON PLU=ON WATER/CT
L95 7 SEA ABB=ON PLU=ON L93 AND L94
D TRIAL 1-7
L96 22 SEA ABB=ON PLU=ON L93 AND WATER
L97 0 SEA ABB=ON PLU=ON L93 AND WATER ACTIVIT?
L98 22 SEA ABB=ON PLU=ON L93 AND AQUEOUS
L99 7 SEA ABB=ON PLU=ON L93 AND EXTRACT?
L100 15 SEA ABB=ON PLU=ON L96 NOT L95
D TRIAL 1-15
D KWIC 1-15
L101 11 SEA ABB=ON PLU=ON L98 NOT L96
D KWIC 1-11
L102 6 SEA ABB=ON PLU=ON L99 NOT L95
D KWIC 1-6
L103 1 SEA ABB=ON PLU=ON L102 AND WATER
D TRIAL
L104 33 SEA ABB=ON PLU=ON L95 OR L96 OR L98
D COST
L105 11 SEA ABB=ON PLU=ON L96 AND L98

FILE 'BIOSIS' ENTERED AT 13:28:27 ON 05 MAR 2007
L106 1 SEA ABB=ON PLU=ON L6 AND L7
L107 71 SEA ABB=ON PLU=ON L89 AND (L90 OR L91) AND L92
L108 21 SEA ABB=ON PLU=ON L107 AND WATER
L109 0 SEA ABB=ON PLU=ON L107 AND WATER ACTIVIT?

FILE 'REGISTRY' ENTERED AT 13:31:47 ON 05 MAR 2007

FILE 'CAPLUS' ENTERED AT 13:31:50 ON 05 MAR 2007
D STAT QUE L8
D STAT QUE L52
L110 7 SEA ABB=ON PLU=ON L8 OR L52

FILE 'MEDLINE' ENTERED AT 13:32:23 ON 05 MAR 2007
D STAT QUE L53

FILE 'EMBASE' ENTERED AT 13:32:35 ON 05 MAR 2007
D STAT QUE L88

FILE 'BIOSIS' ENTERED AT 13:32:43 ON 05 MAR 2007
D STAT QUE L106

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS' ENTERED AT 13:33:02 ON 05 MAR 2007
L111 7 DUP REM L110 L53 L88 L106 (4 DUPLICATES REMOVED)
ANSWERS '1-7' FROM FILE CAPLUS

D IBIB ABS HITIND HITSTR L111 1-7

FILE 'REGISTRY' ENTERED AT 13:33:35 ON 05 MAR 2007

FILE 'CAPLUS' ENTERED AT 13:33:37 ON 05 MAR 2007

D STAT QUE L26
D STAT QUE L27
D STAT QUE L30
D STAT QUE L33
D STAT QUE L41
D STAT QUE L42
D STAT QUE L47
D STAT QUE L48
D STAT QUE L50

L112 26 SEA ABB=ON PLU=ON (L26 OR L27 OR L30 OR L33 OR L41 OR L42 OR
L47 OR L48 OR L50) NOT L110

FILE 'MEDLINE' ENTERED AT 13:34:51 ON 05 MAR 2007

D STAT QUE L67
D STAT QUE L86

L113 15 SEA ABB=ON PLU=ON L67 OR L86

FILE 'EMBASE' ENTERED AT 13:35:15 ON 05 MAR 2007

D STAT QUE L95
D STAT QUE L105

L114 14 SEA ABB=ON PLU=ON (L95 OR L105) NOT L88

FILE 'MEDLINE' ENTERED AT 13:35:50 ON 05 MAR 2007

L115 15 SEA ABB=ON PLU=ON L113 NOT L53

FILE 'BIOSIS' ENTERED AT 13:36:26 ON 05 MAR 2007

D STAT QUE L108

L116 21 SEA ABB=ON PLU=ON L108 NOT L106

FILE 'CAPLUS, MEDLINE, EMBASE, BIOSIS' ENTERED AT 13:37:03 ON 05 MAR 2007

L117 62 DUP REM L112 L115 L114 L116 (14 DUPLICATES REMOVED)

ANSWERS '1-26' FROM FILE CAPLUS
ANSWERS '27-41' FROM FILE MEDLINE
ANSWERS '42-53' FROM FILE EMBASE
ANSWERS '54-62' FROM FILE BIOSIS

D IBIB ABS HITIND L117 1-26
D IALL L117 27-62

FILE HOME

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Mar 2, 2007 (20070302/UP).

FILE CAPLUS

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FILE COVERS 1907 - 5 Mar 2007 VOL 146 ISS 11
FILE LAST UPDATED: 4 Mar 2007 (20070304/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8
DICTIONARY FILE UPDATES: 4 MAR 2007 HIGHEST RN 924728-01-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE MEDLINE

FILE LAST UPDATED: 3 Mar 2007 (20070303/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been
added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R))
and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE EMBASE

FILE COVERS 1974 TO 5 Mar 2007 (20070305/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default)
and biweekly.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 28 February 2007 (20070228/ED)